

# HDD & DVD Player/ Recorder

# DVDR3455H

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Si después de leerlo aún necesita ayuda, consulte nuestro servicio de asistencia en línea en

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Know these **safety** symbols



This "bolt of lightning" indicates un-insulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

**WARNING:** To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.

**CAUTION:** To prevent electric shock, match wide blade of plug to wide slot, fully insert.

**ATTENTION:** Pour éviter les choc électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

**For Customer Use**

Enter below the Serial No. which is located on the rear of the cabinet. Retain this information for future reference.

Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_

# PHILIPS

Visit our World Wide Web Site at <http://www.philips.com/usasupport>

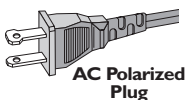
# IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.

6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.


9. Do not defeat the safety purpose of the polarized or grounding-type plug.




A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

**Class II equipment symbol**   
This symbol indicates that the unit has a double insulation system

12.  Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. Battery usage **CAUTION** – To prevent battery leakage which may result in bodily injury, property damage, or damage to the unit:

- Install all batteries correctly, + and - as marked on the unit.
- Do not mix batteries (old and new or carbon and alkaline, etc.).
- Remove batteries when the unit is not used for a long time.

16. Apparatus shall not be exposed to dripping or splashing.

17. Do not place any sources of danger on the apparatus (e.g. liquid filled objects, lighted candles).

18. This product may contain lead and mercury. Disposal of these materials may be regulated due to environmental considerations.

**For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance : [www.eiae.org](http://www.eiae.org).**

EL 6475-E005: 04/01

## LASER

Type	Semiconductor laser InGaAlP (DVD) AlGaAs (CD)
Wave length	658 nm (DVD) 790 nm (CD)
Output Power	30 mW(DVD±RW write) 1.0 mW (DVD read) 1.0 mW (CD read)
Beam divergence	84 degrees (DVD) 61 degrees (CD)

## CAUTION

*Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.*

## ATTENTION

*L'utilisation des commandes ou réglages ou le non-respect des procédures ciincluses peuvent se traduire par une exposition dangereuse à l'irradiation.*

## ATENCIÓN

*El uso de mando o ajustes o la ejecución de métodos que no sean los aquí descritos puede ocasionar peligro de exposición a radiación.*

Due to the inconsistency of disc formats provided by various disc manufacturers, your DVD system/ player/recorder may require a playability enhancement or upgrade. As DVD technology advances, these enhancement will become common and will be easy to complete. Go to [www.philips.com/support](http://www.philips.com/support) for software upgrade.

This warning label is located on the rearside and inside this laser product.

**CAUTION** INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.

**DANGER** INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.

**VARO!** AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINANAKYMATTOMAALLE LASERSATEILYLLE. ÄLÄ KATSO SATEESEEN.

**WARNING!** ÖSYNLIG LASERSTRÄLNING NÄR DENNA DEL ÄR ÖPPNAD. OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÄLEN.

or

**DANGER** - Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.

## Canada

### English:

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications. This Class B digital apparatus complies with Canadian ICES-003.

### Français:

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Class B prescrites dans le Règlement sur le Brouillage Radioélectrique édicté par le Ministère des Communications du Canada. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

'CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF 525 OR 625 PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE 'STANDARD DEFINITION' OUTPUT. IF THERE ARE QUESTIONS REGARDING OUR TV SET COMPATIBILITY WITH THIS MODEL 525p AND 625p DVD PLAYER, PLEASE CONTACT OUR CUSTOMER SERVICE CENTER.'

## Declaration of Conformity

Model number: DVDR3455H

Trade Name: Philips

Responsible Party: Philips Consumer Electronics  
A Division of Philips Electronics  
North America Corp.  
P. O. Box 671539  
Marietta, GA 30006-0026  
1-800-PHILIPS (744-5477)

# Index



This product incorporates copyright protection technology that is protected by US patents. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

U.S. Patent Number 4,631,603; 4,819,098; 4,907,093; 5,315,448; and 6,516,132



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US patent Nr.: 6,466,734; 6,430,359; 6,091,882; 6,049,652; 5,335,079; 5,307,173; 4,908,713; 4,751,578, 4,706,121.



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English

Français

Español

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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## Care and Safety Information

### CAUTION!

**High voltage! Do not open the device. You run the risk of getting an electric shock.**

**The machine does not contain any user-serviceable parts. Please leave all maintenance work to qualified personnel.**

### Setup precautions

#### Finding a suitable location

- Place the set on a flat, hard and stable surface. Do not place the set on a carpet.
- Do not position the set on top of other equipment that might heat it up (e.g., receiver or amplifier.)
- Do not put anything under the set (e.g., CDs, magazines.)
- Install this unit near the AC outlet and where the AC power plug can be reached easily.

#### Space for ventilation

- Place the apparatus in a location with adequate ventilation to prevent internal heat build up. Allow at least 10 (4") cm clearance from the rear and the top of the set and 5 (2") cm from the left and right to prevent overheating.

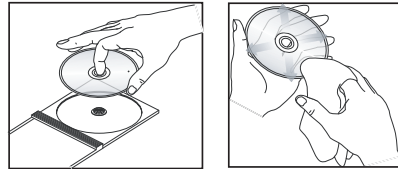
#### Avoid high temperatures, moisture, water and dust

- Apparatus shall not be exposed to dripping or splashing.
- Do not place any sources of danger on the apparatus (e.g., liquid filled objects, lighted candles.)

### Cleaning discs

Some problems occur because the disc inside the recorder is dirty (frozen picture, sound disruptions, picture distortions.) To avoid these problems, discs should be cleaned on a regular basis.

To clean a disc, use a micro fibre cleaning cloth and wipe the disc from the center to the edge in a straight line.



### CAUTION!

Do not use solvents such as benzene, thinner, commercially available cleaners, or anti-static sprays intended for discs.

### HDD (Hard Disk Drive) handling care

The HDD is a fragile piece of device that is easily prone to damage due to its long recording capacity and high speed operation.

- Do not move the unit while it is turned on.
- Do not remove the AC power plug from the power outlet during operation.
- Do not use the unit in excessively hot or humid places. It may cause condensation to form inside the unit.

If the HDD fails, playback and recording will not be possible. In this case, it will be necessary to replace the HDD unit.

### WARNING!

The HDD is not a device for storing recorded content permanently. We recommend that you copy the important video content to a recordable DVD as backup.



## Product Information

### Introduction

This recorder has a built-in hard disk drive (HDD) and you can record more than 250 hours of video.

**Note:** These values are estimates only. Parts of the HDD storage capacity will be reserved for the operations of this recorder and time shifting.

With both recordable DVD and high capacity HDD in the same recorder, you have the flexibility to keep recordings on the HDD or copy to a recordable DVD for safekeeping or later viewing.

Furthermore, you can take advantage of features like 'Instant Replay', or 'Pause Live TV', see the chapter "Control TV programs" for more details.

Before you can start using this recorder, complete the basic connections and set-up in three easy steps.

#### Step 1: Basic recorder connections

#### Step 2: Optional connections for other devices

#### Step 3: Basic installation and set-up

Please take time to read this user manual before using your recorder. It contains important information and notes regarding operations of the recorder.

#### Helpful Hints:

- If you have any questions or if problems occur during operation, see the chapter 'Troubleshooting'.
- If you need further assistance, please call the customer support service for your country. The corresponding telephone numbers and e-mail addresses are given in the guarantee booklet.
- Refer to the type plate on the rear or bottom of the product for identification and supply ratings.

### Accessories supplied

- Remote control and batteries
- Audio/Video (AV) cables
- RF coaxial cable
- Quick Start Guide

### Region codes

DVD films are usually not released at the same time in all regions of the world, thus all DVD players are keyed to a specific region code.

This device will only play **Region 1** DVDs or DVDs manufactured to be played in all regions '**ALL**'. DVDs from other regions cannot be played on this recorder.



### Copyright notice

The making of unauthorized copies of copy-protected material, including computer programs, files, broadcasts and sound recordings, may be an infringement of copyrights and constitute a criminal offence. This equipment should not be used for such purposes.

## Product Information (continued)

### Special Features

#### 'Time Shift Buffer'

Once you turn on this recorder, the program shown on the TV will be stored into the 'Time Shift Buffer'. It acts as a temporary HDD storage of your recordings. The contents will be automatically deleted after a time period of 6 hours, when you turn off this recorder or when you switch it to standby mode. To store the contents on the hard disk, you have to mark the segment in the 'Time Shift Buffer' for recording to prevent them from being deleted.

#### 'Instant Replay'

You can repeat a scene of a live TV program by pressing the ◀ key on the remote control, as often as you like.

To return to the live TV program, press and hold ▶ .

#### 'Pause Live TV'

A live TV program is now under your control. You can pause the program by pressing the **PAUSE LIVE TV** ▶|| key and resume playback at the scene it was interrupted by pressing the ▶|| key.

To return to the live TV program, press and hold ▶ .

#### 'Direct Recording to DVD'

This feature enables you to record content directly on to a recordable DVD disc.

Press **DVD REC** key on the remote control to activate direct recording to the recordable DVD disc.



This is a simple programming system for recorders. To use it, enter the programming number associated with your television program. You can find this number in your favorite listings magazine.



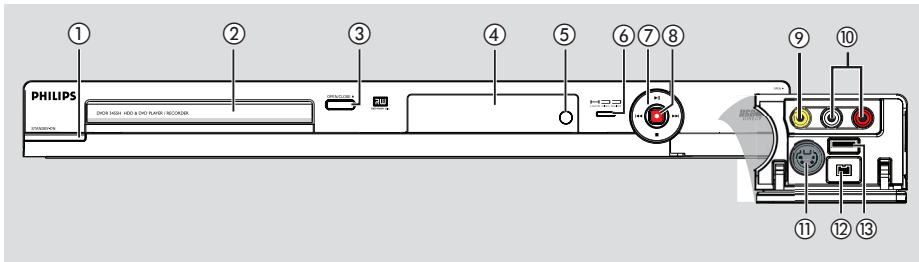
i.Link is also known as 'FireWire' and 'IEEE1394'. This connection is used for the transfer of high bandwidth digital signals as used by digital video (DV) camcorders. It carries all audio and video signals via a single cable.



YesDVD™ enables you to automatically create DVDs with professional quality features from your own videos, complete with visual menu, chapters, music video highlights made from your recordings, and customized DVD case coversheets using images from your video. YesDVD™ is offered on this DVD recorder as a limited trial for three (3) free YesDVD™ discs, with the option to purchase an upgrade Activation Code for unlimited creation of YesDVD™ discs.

# Main Unit

English



## ① STANDBY-ON

- Turns on the recorder or switch to standby mode.

## ② Disc tray

## ③ OPEN/CLOSE ▲

- Opens/closes the disc tray.

## ④ Display panel

- Show information about the current status of the recorder.

## ⑤ IR

- Point the remote control towards this sensor.

## ⑥ HDD Active indicator

- Blue indicator lights up while temporary recording to the time shift buffer is in progress.

## ⑦ ►||

- Starts playback of the selected title/track.
- Pauses playback of the selected title/track.



- Skips to the previous or next chapter/track, or hold down the key to make a reverse/forward search.



- Stops playback/recording.

## ⑧ ●

- Starts recording the current TV channel or the current video input source.
- Red ring lights up while recording to the HDD or a recordable DVD disc is in progress.

## Jacks behind the flap

Flip down the door as indicated by the **OPEN ►** label at the right hand corner.

## ⑨ CAM1 (VIDEO)

- Video input for camcorders or video recorders.

In tuner mode, press **SOURCE** on the remote control repeatedly to select 'CAM1' when using this input source.

## ⑩ L/R AUDIO

- Audio input for camcorder or the audio/video device which is connected to the CAM1 or CAM2 jack.

## ⑪ CAM2 (S-VIDEO)

- S-video input for SVHS/Hi8 camcorders or SVHS/Hi8 video recorders.

In tuner mode, press **SOURCE** on the remote control repeatedly to select 'CAM2' when using this input source.

## ⑫ DV IN

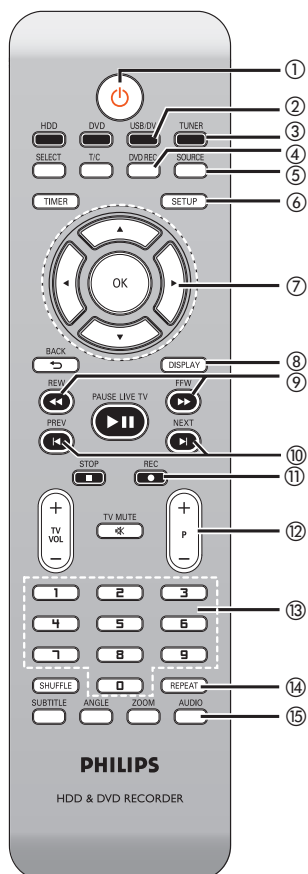
- Input for digital camcorders or other suitable devices using this connector. Press **USB/DV** on the remote control when using this input source.

## ⑬ USB

- Input for USB flash drive / USB memory card reader.

Press **USB/DV** on the remote control when using this input source.

# Remote Control

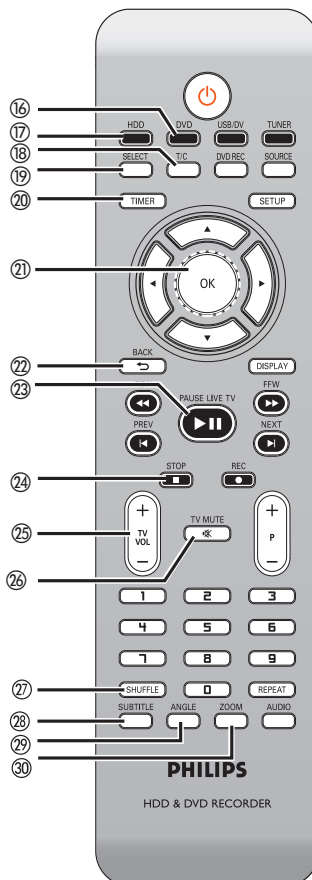


- ① **⏻ (STANDBY-ON)**
- Turns on the recorder or switch to standby mode.
- ② **USB/DV**
- Press repeatedly to toggle between USB and DV modes.
  - Switches to 'camera mode' for camcorder connecting to DV IN jack. Recording can be made directly onto the HDD/DVD.
  - Access the contents of the connected USB flash drive / USB memory card reader connected to USB jack.
- ③ **TUNER**
- Switches to the recorder's tuner mode (TV channel.)

- ④ **DVD REC**
- Activates the 'direct recording to DVD' mode.
- ⑤ **SOURCE**
- In tuner or DVD REC mode, selects the recorder's video input source from the TV channel or external sources. (EXT1, EXT2, CAM1, CAM2.)
- ⑥ **SETUP**
- Enters/exits the system setup menu.
- ⑦ **◀▶** : Cursor keys for moving to the left/ right or making a forward/reverse search.  
**▲▼** : Cursor keys for moving up/down.
- ⑧ **DISPLAY**
- Displays the Time Shift video bar. It shows the timing of the TV programs stored in the temporary HDD storage.
  - Displays the on-screen help text.
- ⑨ **REW ◀◀/FFWD ▶▶**
- Start fast backward/ forward search, press the key again to increase the search speed.
- ⑩ **PREV ◀◀/NEXT ▶▶**
- Skips to previous or next chapter/track.
- ⑪ **REC ●**
- Starts recording the current TV channel or the current video input source.
- ⑫ **P + / -**
- While in tuner mode, selects the next/ previous TV channel program.
- ⑬ **Numeric keypad**
- Selects a chapter/track number to play.
  - Selects the recorder's preset TV tuner channel.
- ⑭ **REPEAT**
- Select to repeat title playback in HDD mode.
  - Select to repeat playback of title, chapter, track or disc in DVD mode.
- ⑮ **AUDIO**
- In tuner mode, toggles between stereo, mono and the Secondary Audio Program modes.

## Remote Control (continued)

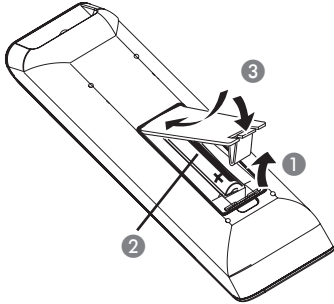
- ⑩ **DVD**
  - Switches to disc mode or displays the disc content menu.
- ⑪ **HDD**
  - Enters the HDD content menu.
- ⑫ **T/C**
  - Displays title/chapter information.
- ⑬ **SELECT**
  - Selects a track/chapter/file in the program menu.
  - In HDD title menu, marks titles for copying to a DVD recordable disc.
- ⑭ **TIMER**
  - Enters/exits the timer recording menu.
- ⑮ **OK**
  - Stores/confirms an entry.
  - Confirms a selection.
- ⑯ **BACK** ⏪
  - Returns to the previous menu of a video CD (VCD) or some DVDs.
- ⑰ **PAUSE LIVE TV** ⏸
  - Plays a disc.
  - Pauses playback.
  - Pauses 'Live TV' viewing.
- ⑱ **STOP** ■
  - Stops playback/recording.
  - Holding down the key will open and close the disc tray.
- ⑲ **TV VOL** + / –
  - Adjust the volume of the TV set (Philips TV only.)
- ⑳ **TV MUTE** 🔇
  - Mute the volume of the TV set (Philips TV only.)
- ㉑ **SHUFFLE**
  - Switches to random playback of an audio CD, Video CD (VCD), picture CD or DVD disc.
  - In HDD title menu, select to sort the titles.



- ㉒ **SUBTITLE**
  - Selects a DVD subtitle language.
- ㉓ **ANGLE**
  - Selects a DVD disc camera angle (if available).
- ㉔ **ZOOM**
  - Enlarges a picture on the TV screen.

## Remote Control (continued)

### Inserting batteries

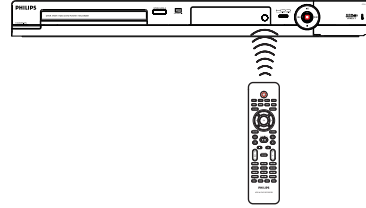


- 1 Open the battery compartment.
- 2 Insert two batteries type R03 or AAA, following the indications (+ -) inside the compartment.
- 3 Close the cover.

#### CAUTION!

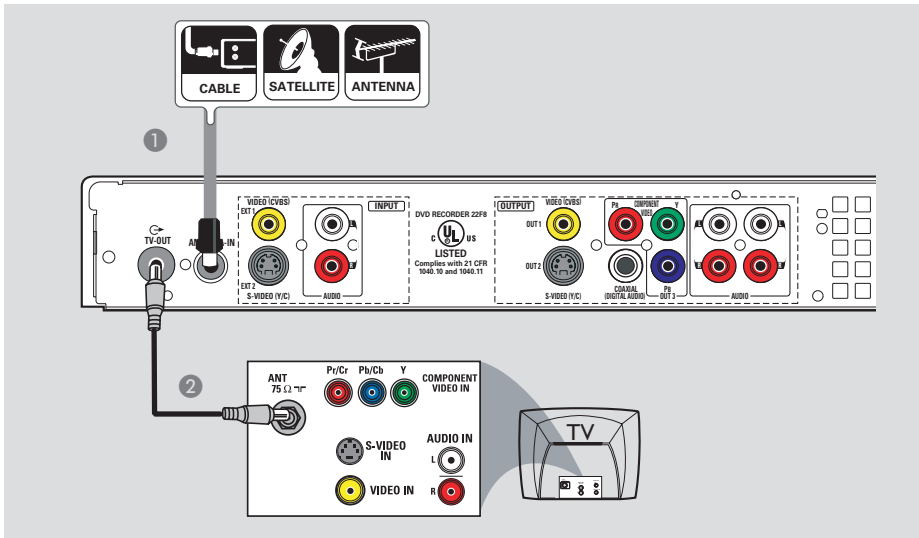
- Remove batteries if they are exhausted or if the remote control is not to be used for a long time.
- Do not mix batteries (old and new or carbon and alkaline, etc.).
- Batteries contain chemical substances, so they should be disposed of properly.

### Using the remote control to operate the system



- 1 Aim the remote control directly at the remote sensor (IR) on the front panel.
- 2 Select the source you want to control by pressing the TUNER, HDD, DVD or USB/DV key on the remote control.
- 3 Select the desired function (for example ◀, ▶.).

# Step 1: Basic Recorder Connections



## Connecting the antenna cables

These connections enable you to watch and record TV programs using this recorder. If the antenna signal is connected via a VCR, Cable Box or Satellite Receiver, ensure that these devices are turned on in order to watch or record the cable programs.

- **If your TV is equipped with an Antenna In (RF IN) jack only,** see “Step 2: Optional connections – TV has only an antenna input jack” for the complete connection to your TV.
- **If you want to connect to a VCR and/or Cable Box/Satellite Receiver,** see “Step 2: Optional connections” for the complete connection to your TV.

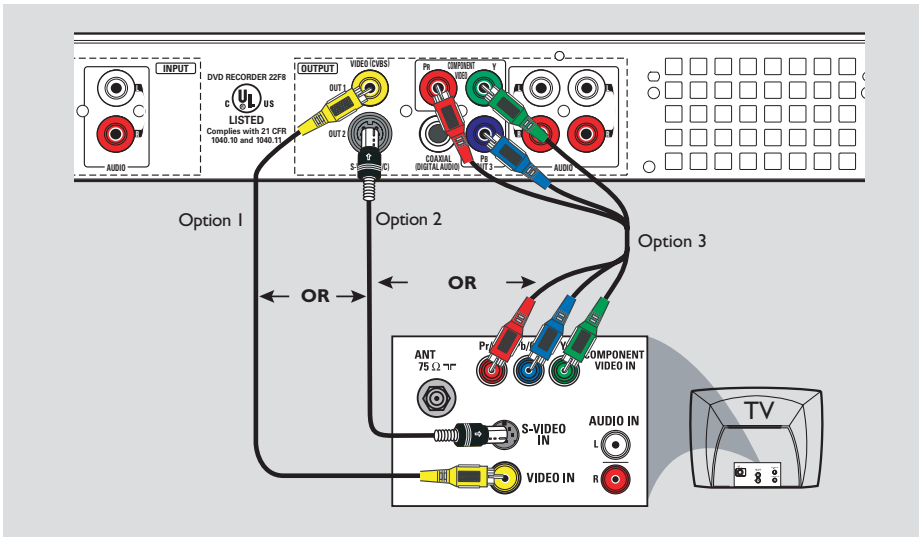
- 1 Connect the existing Antenna/Cable TV signal (or from the Cable Box/Satellite Receiver {RF OUT or TO TV}) to the **ANTENNA-IN** jack on the recorder.
- 2 Use the supplied RF coaxial cable to connect the **TV-OUT** jack on the recorder to the antenna input jack on your TV (VHF/UHF RF IN.)

### Helpful Hint:

– Depending on how you have currently connected your TV channel (directly from an off-air antenna or Cable box or VCR), you will have to disconnect some of the cables before you make the above connection.

**TIPS:** Before making or changing any connections, make sure that all the devices are disconnected from the power outlet.

## Step I: Basic Recorder Connections (continued)



### Connecting the video cable

This connection enables you to view the disc playback from the recorder. You only need to choose one of the options below to make your video connection.

#### Option 1: Using Video (CVBS) jack

- Use the supplied audio/video cables (yellow plug) to connect the **VIDEO (CVBS)-OUT1** jack on the recorder to the video input jack (or labeled as A/V In, Video In or Composite) on the TV.

#### Option 2: Using S-Video jack

- Use an S-video cable (not supplied) to connect the **S-VIDEO (Y/C) - OUT2** jack on the recorder to the S-Video input jack (or labeled as Y/C or S-VHS) on the TV.

#### Option 3 : Using Component Video

- 1 Use the component video cables (red/blue/green - not supplied) to connect the **Y Pb Pr -OUT3** jacks on the recorder to the corresponding component video input jacks (or labeled as Y Pb/Cb Pr/Cr or YUV) on the TV.
- 2 If your TV accepts Progressive Scan signal, see the chapter "Setup Menu Options – PREFERENCE settings" for detailed set up.

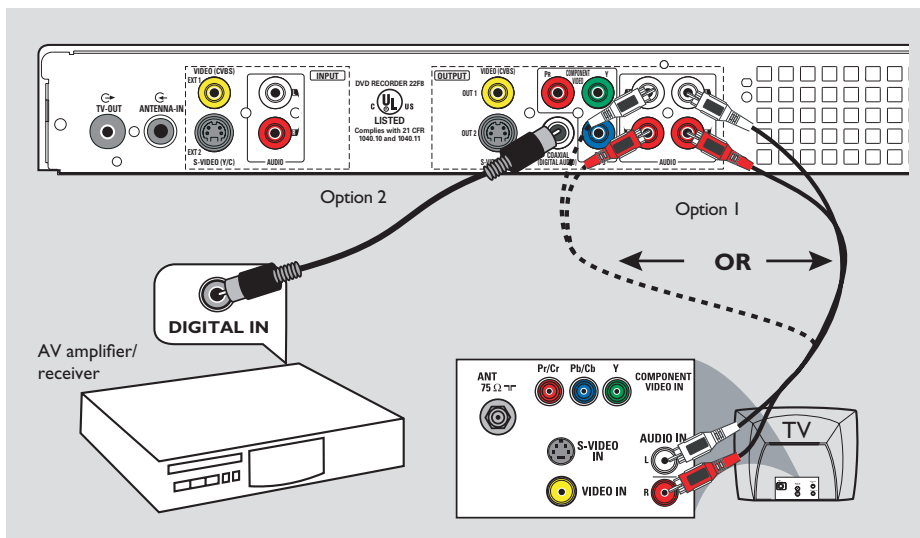
#### IMPORTANT!

The progressive scan video quality is only available through a **Y PB PR** connection and a progressive TV is required. It is strongly advised to complete the recorder installation first, before enabling the progressive scan feature.

**TIPS:** Before making or changing any connections, make sure that all the devices are disconnected from the power outlet.



## Step 1: Basic Recorder Connections (continued)



### Connecting the audio cables

This connection enables you to listen to the sound.

#### Option 1: Using an audio cable

You can connect the recorder to a two channel stereo system or receiver in order to enjoy the stereo sound system.

- Use the supplied audio cable (red/white plugs) to connect the **AUDIO OUTPUT** jacks to these devices with the same input jacks.

#### Option 2: Using a coaxial cable

You can connect the recorder to an AV amplifier/receiver in order to enjoy multichannel surround sound.

- Use a coaxial cable (not supplied) to connect the **COAXIAL (DIGITAL AUDIO)** jack to the digital input on the AV amplifier/receiver (with a digital multichannel sound decoder).

Before you start operating, set the audio settings accordingly (see “Setup Menu Options – AUDIO settings.”)

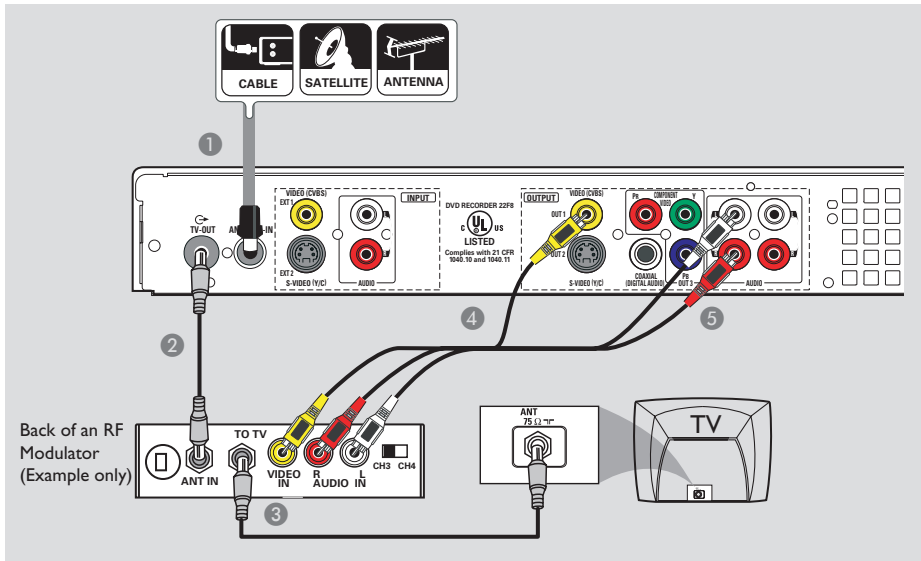
If the AUDIO settings do not match your amplifier’s capabilities, the amplifier may produce a strong, distorted sound or no sound at all.

#### Helpful Hint:

– Do not connect your TV’s audio output jacks to the AUDIO L/R (IN-EXT) jacks on this recorder, this may cause unwanted noise.

**TIPS:** Before making or changing any connections, make sure that all the devices are disconnected from the power outlet.

## Step 2 : Optional Connections



### TV has only an antenna input jack

Use this connection if your TV has only a single Antenna In jack (or labeled as 75 ohm or RF IN) and does not have any audio/video jacks.

**For this connection, you need a RF modulator in order to view the disc playback.**

- 1 You may have an Antenna/Cable TV signal (or from the Cable Box/Satellite Receiver/VCR) connected to your TV's antenna input jack (VHF/UHF RF IN.) Remove it from the TV and connect it to the **ANTENNA-IN** jack on the recorder.
- 2 Use the supplied RF coaxial cable to connect the **TV-OUT** jack on the recorder to the antenna input jack on the RF modulator.

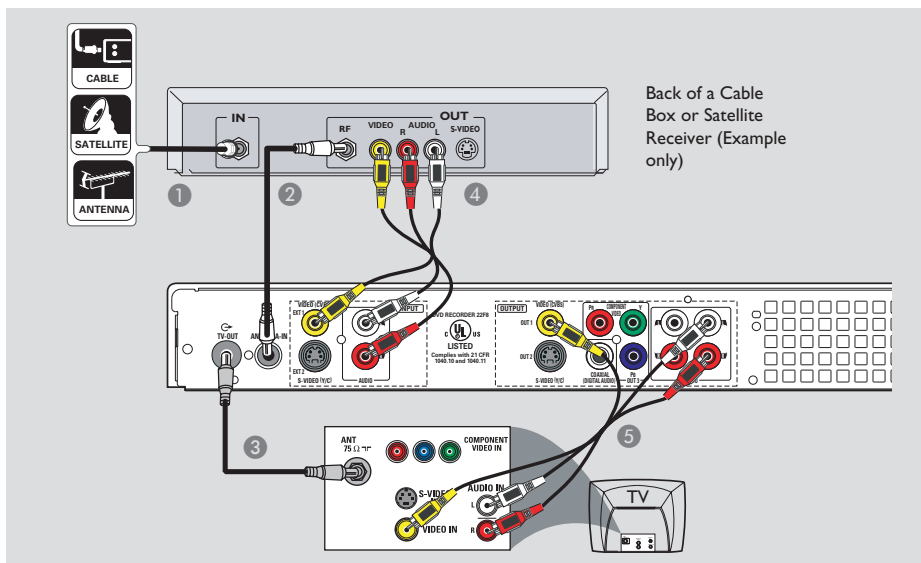
- 3 Use an RF coaxial cable (not supplied) to connect the **TO TV** jack on the RF modulator to the antenna input jack on your TV.
- 4 Use the supplied AV cables (yellow ends) to connect the **VIDEO (CVBS) - OUTPUT** jack on the recorder to the video input jack (or labeled as A/V In, Video In, Composite or Baseband) on the RF modulator.
- 5 Use the supplied AV cables (red/white ends) to connect the **AUDIO L/R - OUTPUT** jacks on the recorder to the audio input jack (or labeled as AUDIO IN or LINE IN) on the RF modulator.

#### Helpful Hints:

- If you have connected the **TO TV** jack on your RF modulator to your TV, set your TV to channel 3 or 4.
- See your electronics retailer for details on RF modulator availability and operations.

**TIPS:** Before making or changing any connections, make sure that all the devices are disconnected from the power outlet.

## Step 2: Optional Connections (continued)



### Connecting to a Cable Box or Satellite Receiver

#### Option 1

If your Cable Box/Satellite Receiver has only an antenna output jack (RF OUT or TO TV),

see the chapter “Step 1: Basic Recorder Connections – Connecting the antenna cables” for the complete connection to your TV.

#### Option 2

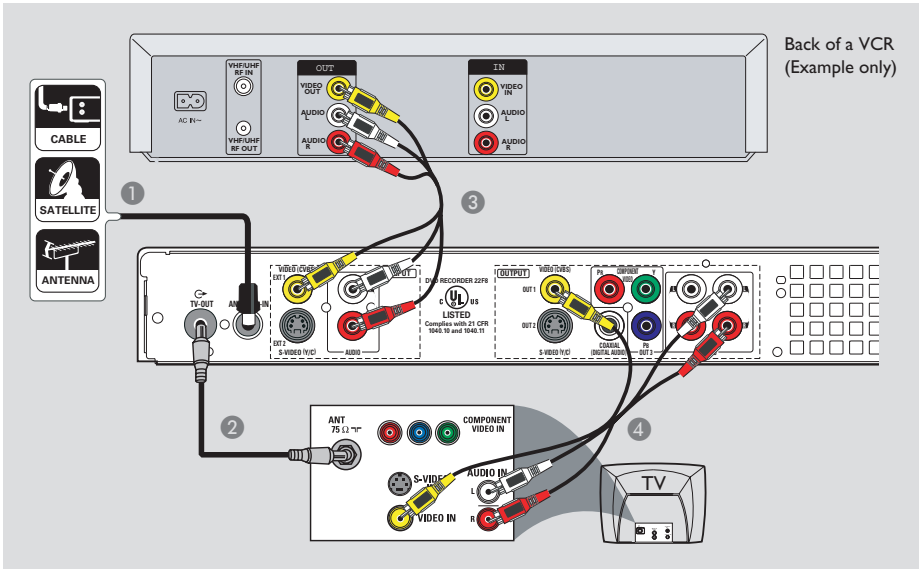
If your Cable Box/Satellite Receiver has video/audio output jacks,

- 1 Keep the existing connection from the Antenna/TV Cable Signal to the antenna input (RF-IN) jack on the Cable Box/Satellite Receiver.

- 2 Use the supplied RF coaxial cable to connect the **ANTENNA-IN** jack on the recorder to the RF OUT jack on the Cable Box/Satellite Receiver.
- 3 Use a RF coaxial cable to connect the **TV-OUT** jack on the recorder to the antenna input jack on your TV (VHF/UHF RF IN.)
- 4 Use the audio/video cables to connect the **VIDEO/AUDIO INPUT** on the recorder to the matching VIDEO/AUDIO output jacks on the Cable Box/Satellite Receiver.
- 5 Use the audio/video cables to connect the **VIDEO/AUDIO OUTPUT** on the recorder to the matching VIDEO/AUDIO input jacks on the TV.

**TIPS:** Before making or changing any connections, make sure that all the devices are disconnected from the power outlet.

## Step 2: Optional Connections (continued)



### Connecting to a VCR or other similar device

This connection enables you to record from a video tape to the HDD or a DVD recordable disc and allows the VCR to be used for playback of VCR tapes.

#### Before you start...

**Your recorder can replace the VCR for all your recording needs. Just unplug all the connections to your VCR.**

- 1 Connect the Antenna/Cable TV signal to the **ANTENNA-IN** jack on the recorder.
- 2 Use a RF coaxial cable to connect the **TV-OUT** jack on the recorder to the antenna input jack on your TV (VHF/UHF RF IN.)

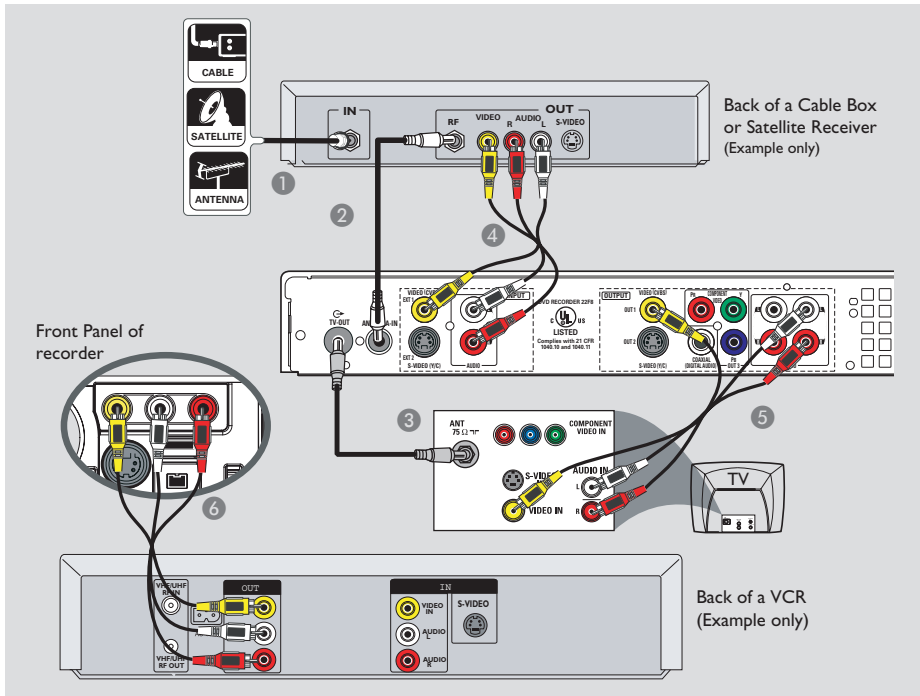
- 3 Use the audio/video cables to connect the **VIDEO/AUDIO INPUT** on the recorder to the matching VIDEO/AUDIO output jacks on the VCR.
- 4 Use the audio/video cables to connect the **VIDEO/AUDIO OUTPUT** on the recorder to the matching VIDEO/AUDIO input jacks on the TV.

#### Helpful Hints:

- Most commercial video cassettes and DVDs are copy-protected and therefore cannot be recorded.
- Connect the recorder directly to the TV. If there is a VCR or an additional device in between, the picture quality may be poor because of the copy protection system built into the recorder.

**TIPS:** Before making or changing any connections, make sure that all the devices are disconnected from the power outlet.

## Step 2: Optional Connections (continued)

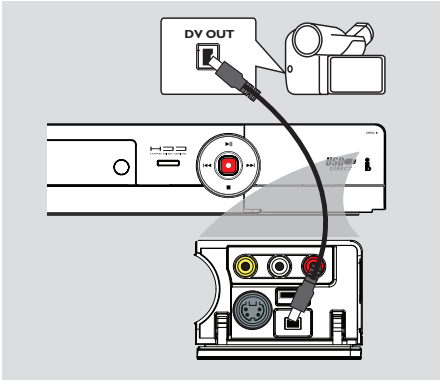


### Connecting to a VCR and Cable Box/Satellite Receiver

- 1 Connect the Antenna/Cable TV signal to the antenna input (RF IN) jack on the Cable Box/Satellite Receiver.
- 2 Use the supplied RF coaxial cable to connect the **ANTENNA-IN** jack on the recorder to the RF OUT jack on the Cable Box/ Satellite Receiver.
- 3 Use a RF coaxial cable to connect the **TV-OUT** jack on the recorder to the antenna input jack on your TV (VHF/ UHF RF IN.)
- 4 Use the supplied audio/video cables to connect the **VIDEO/AUDIO INPUT** jacks on the recorder to the matching VIDEO/AUDIO output jacks on the Cable Box/ Satellite Receiver.
- 5 Use the audio/video cables to connect the **VIDEO/AUDIO OUTPUT** on the recorder to the matching VIDEO/AUDIO input jacks on the TV.
- 6 Use another set of audio/video cables to connect the **CAM I/L-AUDIO-R** jacks on the front panel of the recorder to the to the matching VIDEO/AUDIO (yellow/ red/ white) output jacks on the VCR.

**TIPS:** Before making or changing any connections, make sure that all the devices are disconnected from the power outlet.

## Step 2: Optional Connections (continued)



### Connecting a camcorder to the front jacks

You can use the front jacks to copy camcorder recordings. These jacks are located behind the flap on the right hand side and provides convenient connections for a camcorder.

#### Option 1: Using the DV IN jack

Use this connection if you have a Digital Video or Digital 8 camcorder. The DV jack conforms to the i.LINK standard. It provides the best picture quality.

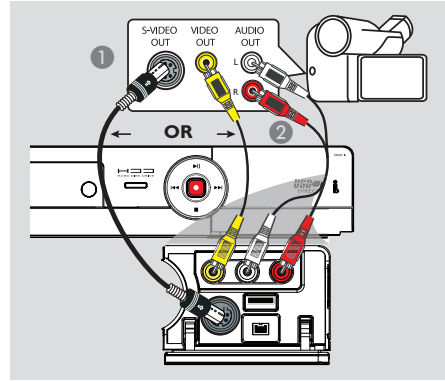
- Use an i.LINK 4-pin cable (not supplied) to connect the **DV IN** jack on the recorder to the appropriate DV OUT jack on the camcorder.

Before you start operating, press **USB/DV** on the remote control to select 'DV' as the input channel. For recording, see "Record on Hard Disk" or "Record on DVD Recordable Disc".

#### Helpful Hints:

- The DV IN jack does not support a connection to a Personal Computer.
- It is not possible to record from the recorder to your camcorder via the DV IN jack on your recorder.

**TIPS:** Before making or changing any connections, make sure that all the devices are disconnected from the power outlet.



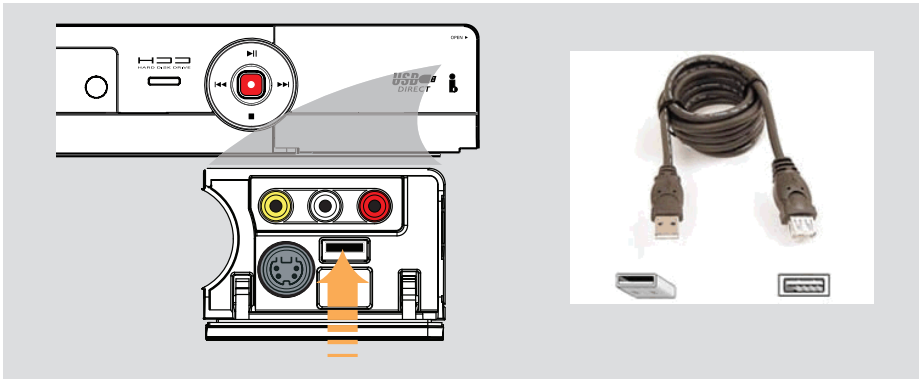
#### Option 2: Using the S-VIDEO In or VIDEO In jack

Use the VIDEO (CAM1) connection if your camcorder has only a single video output (Composite Video, CVBS). *OR*, you can use the S-VIDEO (CAM2) connection if you have a Hi8 or S-VHS(C) camcorder.

- 1 Connect the **CAM 1** or **CAM 2** jack on the front panel of the recorder to the corresponding Video or S-VHS output jack on the camcorder.
- 2 Use an audio cable (red/white ends) to connect the **AUDIO L/R** jacks on the front panel of the recorder to the audio output jacks on the camcorder.

Before you start operating, press **SOURCE** on the remote control repeatedly to select 'CAM1' or 'CAM2' as the input channel, depending on your connections. For recording, see "Record on Hard Disk" or "Record on DVD Recordable Disc".

## Step 2: Optional Connections (continued)



English

### Connecting a USB flash drive or USB memory card reader

You can only view the contents of a USB flash drive / USB memory card reader through this recorder. Editing the data and recording to the hard disk or a DVD±R/±RW is not possible.

- 1 Connect the USB flash drive / USB memory card reader directly to the **USB** port on the front panel (as shown in the above illustration).
- 2 Press **USB/DV** on the remote control in order to view the files stored in the USB flash drive or USB memory card reader.
- 3 To stop playback, press **STOP** ■ or remove the USB flash drive / USB memory card reader from the USB port.

#### Helpful Hints:

- The USB port only supports the playback of JPEG/MP3 files.
- The USB port does not support the connection of other USB devices except to a USB flash drive / USB memory card reader.
- If the USB device does not fit into the USB port, a USB extension cable is required.

**TIPS:** Before making or changing any connections, make sure that all the devices are disconnected from the power outlet.

## Step 3: Installation and Setup

### Before you start...

When you complete the connections and turn on the recorder for the first time, it is advisable that you make several basic settings.

Please see the following pages on using the Setup Menu features to program TV channels, menu language and system clock settings. This will improve the performance of this recorder considerably.

### Finding the correct viewing channel

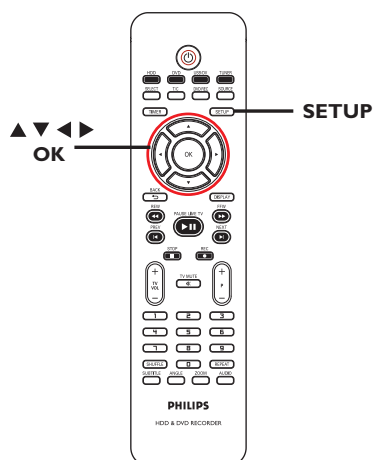
- 1 Press **STANDBY-ON** on the recorder to turn it on.
- 2 Turn on the TV and set it to the correct video-in channel. You should see the blue DVD background screen.
  - Usually this channel is between the lowest and highest channels and may be called FRONT, A/V IN, VIDEO. See your TV's manual for more details.
  - Or, you may go to Channel 1 on your TV, then press the Channel down key repeatedly until you see the Video In channel.
  - Or, the TV remote control may have a key or switch that chooses different video modes.
  - Or, set the TV to Channel 3 or 4 if you are using a RF modulator.


### Setting your TV channel programs

Before the recorder can start recording any TV channel programs, you need to search for the available TV channels and store them in this recorder.

**Note:** Ensure that you have successfully made all the required connections to the recorder, TV and Satellite Receiver/ Cable Box (if any) and have turned them on.

**Tuner settings can only be changed when the recorder is not playing or recording.**



- 1 Press **SETUP** on the remote control.
  - The setup menu appears on the TV.
- 2 Use **▲▼** keys to highlight  { **SETUP MENU - GENERAL** } and press **▶**.

**TIPS:** Press **▶** to go access the options of an item in the menu.  
Press **SETUP** to exit the menu.

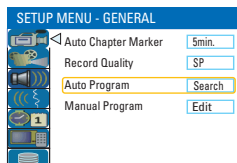


## Step 3: Installation and Setup (continued)

### GENERAL settings (underlined options are the factory default settings)

#### Auto Program

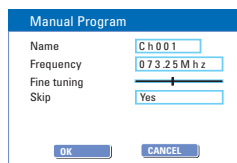
Select to start automatic TV channel programming.



- 1) Use ▲▼ keys to highlight { **Auto Program - Search** } and press ► .  
→ A warning message will appear. Select **OK** and press **OK** on the remote control.
- 2) Use ▲▼ keys to highlight { **Tuner Input Source** } and press ► to access the options:
  - { **Cable** } – Select this if the recorder is connected via a cable box/ satellite receiver.
  - { **Air** } – Select this if the recorder is connected directly to the antenna wall outlet.
- 3) Use ▲▼ keys to highlight **CONTINUE** and press **OK**.  
→ The automatic TV channel search will start. This process may take several minutes. Once complete, the total number of channels found will appear on the TV.

#### Manual Program

Select to modify your preset TV channels.



- 1) Use ▲▼ keys to highlight { **Manual Program - Edit** } and press ► .  
→ The modify channel options will be displayed.
- 2) Use ▲▼ keys to one of the options and press ► .
  - { **Name** } – Use **P +/-** to select by the channel name for modifying.
  - { **Frequency** } – Select this to adjust the frequency of the channel.
    - Use ◀▶ keys to adjust the frequency. Press **OK** on the remote control to confirm the setting.
  - { **Fine tuning** } – Select this to fine-tune the TV channel manually if the reception is poor.
    - Use ◀▶ keys to fine-tune the frequency.
  - { **Skip** } – Select this to set the channel to be skipped. The skipped channels can only be accessed by pressing the corresponding number key on the remote control.
    - Use ▲▼ keys to select { **Yes** } if you wish to skip this channel.
- 3) To confirm the changes, select **OK** and press **OK** on the remote control to exit to the previous screen.

## Step 3: Installation and Setup (continued)

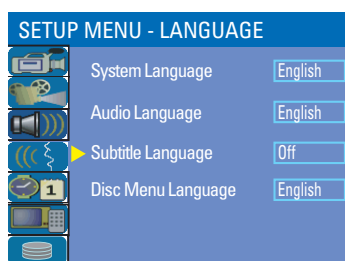
### Setting the language

You can select the language for subtitles and audio for DVD playback. For some DVDs, the subtitle/audio language can only be changed via the DVD disc menu. If the selected language is not available on the disc, the disc's default language will be used instead.

The menu language (on-screen display) for the system will remain as you set it.

**Language settings can only be changed when the recorder is not playing.**

- 1 Press **SETUP**.  
→ The setup menu appears.
- 2 Use ▲▼ keys to highlight  { **SETUP MENU - LANGUAGE** } and press ► to access the menu.

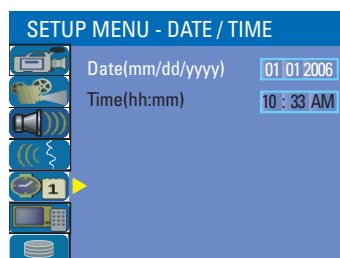


- 3 Use ▲▼ keys to highlight one of the options and press ►. See next page for details.
- 4 Use ▲▼ keys to highlight the desired setting and press **OK** to confirm.

### Setting the time & date

If the recorder has not set the time and date correctly, adjust the clock manually by following the steps below.

- 1 Press **SETUP**.  
→ The setup menu appears.
- 2 Use ▲▼ keys to highlight  { **SETUP MENU - DATE / TIME** } and press ► to access the menu.



- 3 Use ▲▼ keys to highlight one of the options and press ► to access the options.
  - If the recorder has not set the time and date correctly, you can further adjust the clock settings, see next page for details.
- 4 Once complete, press ◀ to return to the previous menu.
- 5 Press **SETUP** to exit.

**TIPS:** Press ► to go access the options of an item in the menu.  
Press **SETUP** to exit the menu.

## Step 3: Installation and Setup (continued)

### LANGUAGE settings

**System Language** Select the menu language for this recorder on-screen display.

**Audio Language** Select the preferred audio language for DVD playback.

**Subtitle Language** Select the preferred subtitle language for DVD playback.

**Disc Menu Language** Select the preferred disc menu language for DVD playback

*Helpful Hints:*

- If the selected audio/subtitle language is not available on the disc, the disc's default setting language will be used instead.
- For some DVDs, the subtitle/audio language can only be changed via the DVD disc menu.

### DATE/ TIME settings (underlined options are the factory default settings)

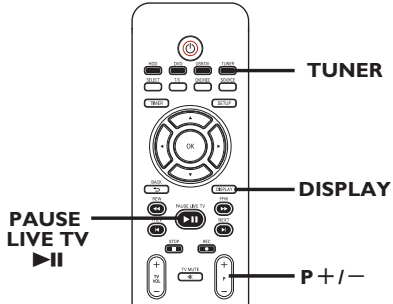
**Date (mm/dd/yyyy)** Use ▲▼ keys to change the number and use ◀▶ keys to select different entry fields, then press **OK** to confirm.

**Time (hh/mm)** Use ▲▼ keys to change the number and use ◀▶ keys to select different entry fields, then press **OK** to confirm.

**The basic installation is now complete. This recorder is ready for use!**

## Control TV programs

### Switching on to TV program



- 1 Turn on the TV to the correct program number for the recorder (e.g. 'EXT', '0', 'AV').
- 2 Press **STANDBY-ON** to turn on the recorder.  
→ If no TV program appears on the screen, press **TUNER** on the remote control.
- 3 Press **P +/-** to select a TV channel.  
→ The selected TV channel will appear on the status window.  
→ The active TV programs will be stored automatically to the temporary HDD storage in this recorder. This information is shown on the Time Shift video bar.
- To display or remove the Time Shift video bar, press the **DISPLAY** key repeatedly.



**For more information on the temporary HDD storage (Time Shift Buffer,) see next page.**

### Pause live TV function

You may be interrupted whilst watching your favorite TV program. You can pause the show by pressing **PAUSE LIVE TV** **▶||**. To resume playback of the program at the scene it was interrupted, press **PAUSE LIVE TV** **▶||** again. You can 'pause' the live TV broadcast up to a maximum period of 6 hours. It behaves exactly as if you were in control of the live broadcast.

If you want to return to the live TV program, press and hold **▶**.

### Instant Replay function

Whilst watching a live TV program, you can press **◀** on the remote control to jump back 10 seconds upon every single press for instant replay.

If you want to return to the live TV program, press and hold **▶**.

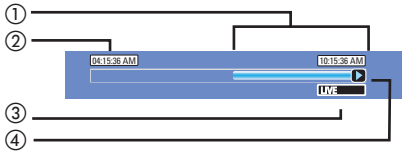
**TIPS:** Press **DISPLAY** to display the time shift video bar or help text.

## Before Recording

### About temporary HDD storage (Time Shift Buffer)

As soon as you switch on this recorder, the currently selected TV program will be stored in a temporary hard disk storage called '**TSB**' (Time Shift Buffer), (up to 6 hours of programs.)


In tuner mode, the Time Shift video bar will appear on the screen, it indicates the status and timing of the TV programs stored in the temporary HDD storage. You can choose to display or remove the video bar by pressing the **DISPLAY** key on the remote control.



The Time Shift video bar consists of the following information :

- ① Content temporarily saved in the time shift buffer.
- ② The TV program start time.  
Once it has exceeded 6 hours, the content stored at the beginning will be deleted and the start time will be updated accordingly.
- ③ Status of source of video input.  
“LIVE” or the time of current playback being viewed “HH:MM:SS”.
- ④ Icon which shows the status of the time shift buffer.
  - ▶ – playback of content stored in the time shift buffer.
  - – marks the beginning of content recording.
  - – marks the current recording in progress.
  - || – the current screen has been paused from playback. (This will not pause recording.)

#### WARNING!

The TV programs stored in the temporary HDD storage will be deleted once it has exceeded the storage buffer or when you press **STANDBY-ON**  to turn off the recorder.

In addition, executing the following actions will also clear the contents in the temporary HDD storage:

- Press **USB/DV** or **SOURCE** on the remote control.

OR

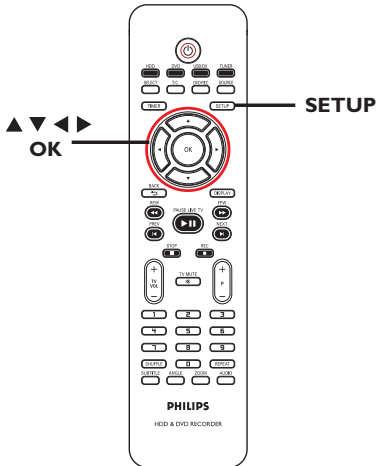
- Use the option { **Delete HDD** } to erase all contents of your hard disk storage. See “Before Recording – HDD Settings” for details.


**TIPS:** Press **DISPLAY** to display the time shift video bar or help text.

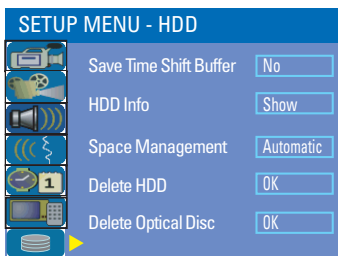
## Before Recording (continued)

### Accessing the HDD (Hard Disk Storage) Setup Menu

You can preset the behavior of your hard disk storage of the recorder. This recorder offers various options for easy management of your hard disk recording.



- 1 Press **SETUP**.  
→ The system setup menu appears.
- 2 Use ▲▼ keys to highlight  { **SETUP MENU - HDD** } and press ► to access the menu.



- 3 Use ▲▼ keys to highlight the option and press ► to access its options.
- 4 To exit, press ◀.

**TIPS:** Press ◀ to go back to previous menu item.  
Press **SETUP** to exit the menu.

## Before Recording (continued)

### HDD settings (underlined options are the factory default settings)

#### Save Time Shift Buffer

This option allows you to control the behavior of the Time Shift Buffer.

- { Yes } – Retain the contents in the temporary HDD storage when you switch the tuner's TV channel or external video input source.
- { No } – Clear the contents in the temporary HDD storage.

#### HDD Info

Press **OK** to display information on:

- Hard disk size in MB ( Megabytes).
- Used space in MB ( Megabytes).
- Remaining space in MB ( Megabytes).
- Number of titles stored on the HDD.

#### Space Management

This option determines how the recorder will respond when the HDD is full of recordings.

- { Automatic } – During recording, when the HDD is full, the recorder will proceed to overwrite any unprotected recordings in the HDD. The oldest unprotected recordings will be deleted first.
- { Manual } – During recording, when the HDD is full, recording will be stopped. A warning message { **The hard disk is full. Please erase some programs to allow further recording.** } will appear on the screen.

#### Delete HDD

This option will erase all marked/ unmarked recordings on the HDD. This option is not available when recording to HDD is in progress.

- Press **▶** to highlight **OK**.  
→ A warning message will appear. Select **OK** to proceed or **CANCEL** to abort. Once complete, the recorder will switch to standby mode.

#### Delete Optical Disc


This option will erase all content on a DVD±RW disc, including those that were not recorded on this recorder. This option is only available in tuner mode.

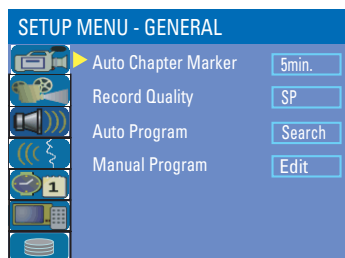
- Press **▶** to highlight **OK**.  
→ A warning message will appear. Select **OK** to proceed or **CANCEL** to abort.

## Before Recording (continued)

### Default recording settings

The default recording settings will allow you to preset auto chapter markers and the preferred mode of recording quality for HDD recording.

- 1 Press **SETUP** on the remote control.  
→ The setup menu appears on the TV.
- 2 Use ▲▼ keys to highlight  { **SETUP MENU - GENERAL** } and press ► to confirm.



- 3 Use ▲▼ keys to select the setting you wish to change and press **OK** to confirm.  
→ Instructions and explanation of the options are provided in the following pages.
- 4 To exit, press **SETUP**.

### Auto Chapter Markers

You can insert chapter markers within a title during recording. This allows you to access specific points on the recording.

- 1 Use ▲▼ keys to highlight { **Auto Chapter Marker** } and press ► to access its options.
- 2 Use ▲▼ keys to select your preferred setting.
- 3 Press **OK** to confirm.

### Default Recording Quality

The setting defines the picture quality of recordings and the maximum recording time on the HDD.

**Important!** When copying from the HDD to a DVD recordable disc, the mode of record quality for the selected recording in the HDD will automatically be transferred, selecting another mode of record quality is not possible.

- 1 Use ▲▼ keys to highlight { **Record Quality** } and press ► to access its options.
- 2 Use ▲▼ keys to select your preferred mode of record quality.
- 3 Press **OK** to confirm.

**TIPS:** Press ◀ to go back to previous menu item. Press **SETUP** to exit the menu.



## Before Recording (continued)

### **GENERAL settings** (underlined options are the factory default settings)

#### **Auto Chapter Markers**

You can insert chapter markers within a title during recording. This lets you access to specific points on the recording.

- Press ► to access the menu and use ▲▼ keys to select one of the options.
  - { 5 mins } – Chapter markers are inserted during recording at every 5 minutes interval.
  - { 10 mins } – Chapter markers are inserted during recording at every 10 minutes interval.
  - { 20 mins } – Chapter markers are inserted during recording at every 20 minutes interval.
  - { 30 mins } – Chapter markers are inserted during recording at every 30 minutes interval.
  - { Off } – The feature is disabled.

#### **Record Quality**

Select this to preset your preferred mode of record quality.

- Press ► to access the menu and use ▲▼ keys to select one of the options.

Record Quality	Hours of Recording that can be stored	
	HDD 160GB	DVD±R/±RW 4.7GB recordable disc
<b>HQ</b> High Quality	34	1
<b>SP</b> Standard Play	68	2
<b>SPP</b> Standard Play Plus	85	2.5
<b>LP</b> Long Play	102	3
<b>EP</b> Extended Play	136	4
<b>SLP</b> Super Long Play	200	6
<b>SEP</b> Super Extended Play	270	8

Values are estimates only. Parts of the HDD storage capacity will be reserved for the operations of this recorder and time shifting.

#### **Auto Program**

Make automatic TV channel programming.

See the section “Step 3: Installation and Setup – Setting your TV channel programs”.

#### **Manual Program**

Modify your preset TV channels.

See the section “Step 3: Installation and Setup – Setting your TV channel programs”.

## Record on Hard Disk

### IMPORTANT!

#### Unrecordable pictures

Television programs, films, video tapes, discs, and other materials may be copy-protected and therefore cannot be recorded on this recorder.

### Recording TV programs

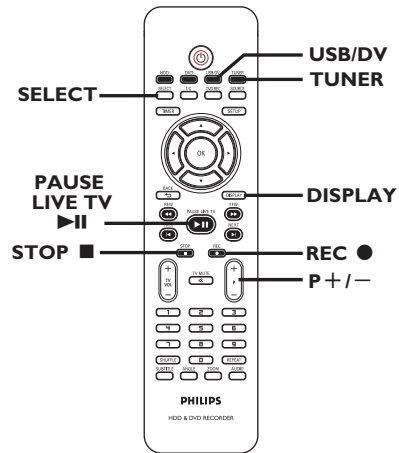
Follow the instructions below to record TV programs onto the HDD, where you can store for future viewing or copy to a DVD recordable disc if required.

- 1 In tuner mode, press the **DISPLAY** key on the remote control to display the time shift video bar.
- 2 Use **◀◀ / ▶▶** keys to search for the beginning of the scene in the temporary HDD storage where you want to start recording.
- 3 Press **REC ●** on the remote control to start recording.  
→ To cancel, press and hold **SELECT**.
- To save all current programs stored in the time shift buffer, press and hold **REC ●**.
- 4 To stop recording, press **STOP ■** on the remote control.

**To record directly to a DVD recordable disc**, see the chapter "Record on DVD Recordable Disc."

### Recording from a DV camcorder

You can record video directly from a connected DV camcorder onto the HDD, where you can edit it easily and copy to a recordable DVD if required.



### IMPORTANT!

– If you press **USB/DV** on the remote control, the unmarked contents in the TSB will be removed.

**TIPS:** Set the appropriate mode of record quality for HDD recording, the same record quality will be transferred from HDD to a recordable DVD, see "Before Recording."

## Record on Hard Disk (continued)

- 1 Connect the DV camcorder to the **DV IN** jack on the front panel of this recorder.
- 2 Find the footage on the DV camcorder that you want to start recording from and set the camcorder to pause mode.
- 3 Turn on the TV to the correct program number for the recorder (e.g. 'EXT', '0', 'AV').
- 4 Turn on the recorder and press **USB/DV** on the remote control.  
→ An information box will be displayed.

System State: **Stop** DV State: **Stop**  
Record to Hard Disc As **Standard Play**  
Elapsed Time: **00:00:00** Remaining Time: **00:00:00**

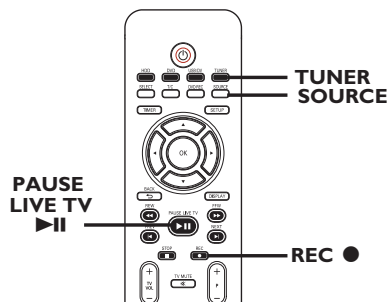
- 5 Press **SELECT** repeatedly to change the mode of record quality.
- 6 Press **REC ●** to start recording and press the **PLAY** key on the DV camcorder to start playback.
- To pause recording, press **▶II**.  
To resume recording, press **REC ●** again.  
→ A new chapter marker is created after recording restarts.
- 6 To stop recording, press **STOP ■**.  
→ A new title will be created when you begin another recording.


**To record directly to a DVD recordable disc**, see the chapter "Record on DVD Recordable Disc."

### Recording from an external device (Camcorder/VCR/DVD player)

A copy protection system has been built into this recorder to prevent the transfer of data from pre-recorded DVDs or other copy protected material onto the recordable DVD. You can only store the contents in the temporary HDD storage of this recorder.

**Note:** Set the preferred mode of record quality before proceeding, see "Before Recording - Default Recording Settings."



- 1 Connect the external device to this recorder. (See the chapter "Step 2: Optional Connections".)
- 2 Turn on the TV to the correct program number for the recorder (e.g. 'EXT', '0', 'AV').
- 3 Press **STANDBY-ON**  to turn on the recorder.  
→ If no TV program appears on the screen, press **TUNER** on the remote control.

**TIPS:** Set the appropriate mode of record quality for HDD recording, the same record quality will be transferred from HDD to a recordable DVD, see "Before Recording."

## Record on Hard Disk (continued)

- 4 Press **SOURCE** repeatedly to select the correct input channel that matches the connected jack of the device.

**{ CAM 1 }**

Input source from the device connected to the CAM1 (VIDEO) and AUDIO L/R jacks on the front panel.

**{ CAM 2 }**

Input source from the device connected to the CAM2 (S-VIDEO) and AUDIO L/R jacks on the front panel.

**{ EXT 1 }**

Input source from the device connected to the VIDEO (CVBS) EXT1 and AUDIO L/R jacks on the back panel.

**{ EXT 2 }**

Input source from the device connected to the S-VIDEO (Y/C) EXT2 and AUDIO L/R jacks on the back panel.

- 5 Press **REC** ● to start recording.  
→ You can also press **REC** ● repeatedly to increase the recording time in 30-minute increments.
- 6 Start playback on the connected device.  
To pause the playback on the device, press **▶II**. To continue, press **▶II** again.  
→ You can use this function to avoid any unwanted recording .
- 7 To stop the recording before the scheduled ending, press **STOP** ■.

**To record directly to a DVD recordable disc**, see the chapter "Record on DVD Recordable Disc."

**TIPS:** Set the appropriate mode of record quality for HDD recording, the same record quality will be transferred from HDD to a recordable DVD, see "Before Recording."

# Record on DVD Recordable Disc

## IMPORTANT!

### Unrecordable pictures

Television programs, films, video tapes, discs, and other materials may be copy-protected and therefore cannot be recorded on this recorder.

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## Copying from HDD to a recordable DVD

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You can copy a recorded title(s) from the HDD (hard disk drive) to a recordable DVD disc.

The time taken to copy content from the HDD to a recordable DVD depends on the record quality of the HDD recordings.

It is not possible to change the mode of record quality during the copying process. As such, it is important that you choose the appropriate record quality when you first set up the recording to the HDD.

The copying process is done at a higher speed than the recording. The following information will be stored on the disc :

- Title/name of recording
- Date of recording
- Time of recording
- Record quality mode/ length of recording
- Index picture of title

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## Discs for recording

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There are several formats of DVD recordable discs which can be used with this recorder:



### **DVD±RW** (DVD ReWritable discs)

- Discs that are rewritable can be used for multiple recordings once the existing data has been erased.



### **DVD±R** (DVD Recordable discs)

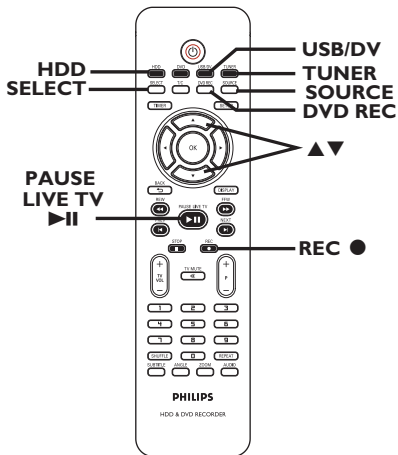
- Discs that can only be used for a single recording. Each new recording is always added at the end of all previous recordings as existing recordings cannot be overwritten.
- Editing can be made on DVD±R discs as long as they have not been finalized.
- To play a DVD±R disc on another DVD player, it must be finalized (see "Edit Recordings – Recordable DVD – Playing your recordings (DVD±R) on other DVD players") After this is done, no more content can be added to the disc.

**TIPS:** Ensure that there is sufficient space available on the DVD±R before recording. You have to finalize the DVD±R before it can be played on other players, see "Playing your recordings on other DVD players."

## Record on DVD Recordable Disc (continued)

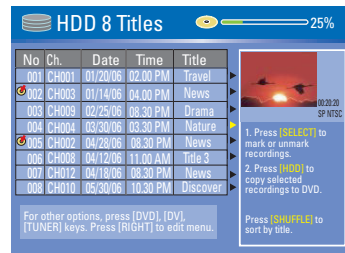
### Recording from various sources



You can choose to copy your recordings from the HDD or an external device to a DVD recordable disc. The storage capacities of the disc depends on the record quality that was selected for the recording in the recorder or device, see “Before Recording – Default Recording Settings.”



### Recording from the HDD

- 1 Turn on the TV to the correct program number for the recorder (e.g. 'EXT', '0', 'AV').
- 2 Insert a DVD recordable disc into the recorder.
- 3 Press **HDD** on the remote control.  
→ The HDD content menu appears on the screen.



- 4 Use **▲▼** keys to highlight the title/titles and press **SELECT** to mark the titles to copy to DVD.
  - If you have many HDD title recordings, use **◀** (PREV) or **▶** (NEXT) to view the previous/ next page of HDD titles for selection.
- 5 Press **HDD** on the remote control.  
→ Recording to the DVD recordable disc will begin. The dubbing icon  will be displayed at the bottom right corner of the screen.  
→ Once complete, the icon will not be shown.
- 6 To stop recording, press **STOP**  on the remote control.

#### Helpful Hint:

– During selection of recordings for copying, press **SHUFFLE** on the remote control to sort according to the titles of recording.

**TIPS:** Ensure that there is sufficient space available on the DVD±R before recording. You have to finalize the DVD±R before it can be played on other players, see “Playing your recordings on other DVD players.”

## Record on DVD Recordable Disc (continued)

### Recording from an external device/ VCR/ DV Camcorder

1 Turn on the TV to the correct program number for the recorder (e.g. 'EXT', '0', 'AV').

2 Insert a DVD recordable disc into the recorder.

3 Press **DVD REC** to switch to direct recording mode.  
→ An information box will be displayed on the screen.

System State: Stop  
Record to Optical Disc As **Standard Play**  
Elapsed Time: **00:00:00** Remaining Time: **02:00:00**

4 Press **SOURCE** repeatedly to select from the various options:

{ **Tuner** }  
Input source from TV programs.

{ **CAM 1** }  
Input source from the device connected to the CAM1 (VIDEO) and AUDIO L/R jacks on the front panel.

{ **CAM 2** }  
Input source from the device connected to the CAM2 (S-VIDEO) and AUDIO L/R jacks on the front panel.

{ **EXT 1** }  
Input source from the device connected to the VIDEO (CVBS) EXT1 and AUDIO L/R jacks on the back panel.

{ **EXT 2** }  
Input source from the device connected to the S-VIDEO (Y/C) EXT2 and AUDIO L/R jacks on the back panel.

OR

● Press **USB/DV** to record from the DV camcorder connected to the DV IN jack on the front panel.

5 Press **SELECT** to toggle between the different modes of record quality.

Record Quality	Hours of Recording that can be stored	
	HDD 160GB	DVD±R/RW 4.7GB recordable disc
<b>HQ</b> High Quality	34	1
<b>SP</b> Standard Play	68	2
<b>SPP</b> Standard Play Plus	85	2.5
<b>LP</b> Long Play	102	3
<b>EP</b> Extended Play	136	4
<b>SLP</b> Super Long Play	200	6
<b>SEP</b> Super Extended Play	270	8

Values are estimates only. Parts of the HDD storage capacity will be reserved for the operations of this recorder and time shifting.

6 Press **REC** on the remote control.  
→ Recording to the DVD recordable disc will be begin.

7 To stop recording, press **STOP** on the remote control.

#### Helpful Hint:

– All title selections and settings will be lost once you replace or remove the recordable DVD.

**To edit your recordings on the DVD recordable disc**, see the chapter "Edit Recordings – Recordable DVD."

**TIPS:** Ensure that there is sufficient space available on the DVD±R before recording. You have to finalize the DVD±R before it can be played on other players, see "Playing your recordings on other DVD players."

# YesDVD™

English

## About YesDVD™

YesDVD™ software allows you to create DVDs with professional quality features at the touch of a key on the remote control, including:

- Easy-to-use picture menus for easy scene selection.
- Case coversheet with a picture index from your recording.
- Music videos made from your recording.



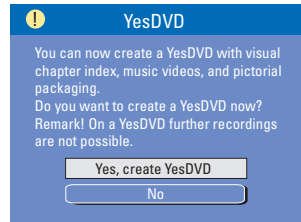
This recorder comes with an evaluation version (3 free trials) of YesDVD™ software. To purchase an Activation Code for unlimited use, place your completed YesDVD™ recording into a PC with a DVD drive and follow instructions on the PC screen. You can also visit [www.yesdvd.com](http://www.yesdvd.com), or call toll free 1-877-4YESDVD.

## Creating a YesDVD™ disc (DVD+R/+RW only)

YesDVD™ is offered on your recorder as a limited trial, enabling you to create three (3) free YesDVD™ discs from this recorder. When all the three YesDVD™ trials are used, there will be no further dialog asking to create a YesDVD™ after direct recording to DVD. To create more YesDVD™ discs, you have to purchase the full version of YesDVD™. See next page for upgrade information or visit [www.yesdvd.com](http://www.yesdvd.com).

**Creation of a YesDVD™ disc is only possible on the first recording from an empty DVD+R/+RW disc, and the recording is made from an external input source (TUNER, DV, EXT1, EXT2, CAM1 or CAM2.) YesDVD™ features are not available for recording to the HDD.**

- 1 At the end of recording to a DVD+R/+RW disc, a dialog box will appear on the TV asking if you want to continue with creation of a YesDVD™.





- Use **▲▼** keys to select { **Yes, create YesDVD** } in the menu and press **OK** to confirm.  
 → The disc will be created as a YesDVD™ and the music videos will be automatically added. This may take several minutes.  
 → During the finalization of the YesDVD™ you will not be able to stop the process.

*Helpful Hints:*

- Further recordings onto a YesDVD™ disc are not possible.
- For DVD+RW only, you can make your recordings again after selecting { **Delete all** } to erase the recorded materials.

**Printing a YesDVD™ customized case coversheet**

**Before you start...**


To print the coversheet, you require computer and printer. No Internet connection is required.

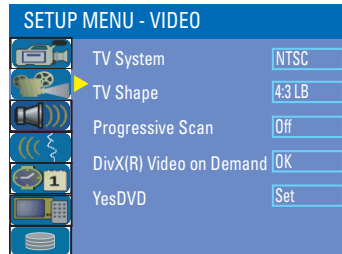
One of the special features of YesDVD™ is a customized case coversheet which includes pictures of scenes from your video. The case coversheet can be printed direct from your own printer, and fits into a standard DVD case [7" x 5"] which can be purchased at [www.store.yesdvd.com](http://www.store.yesdvd.com) or from most electronics stores. After you have completed creating your YesDVD™ on your recorder:

- Press and hold **STOP** ■ to eject the YesDVD™ disc from the recorder.
- Insert the YesDVD™ disc into the DVD disc drive tray on your personal computer.
- A webpage will automatically launch on your computer with step-by-step instructions on how to print your customized YesDVD™ case coversheet.

## YesDVD™ setup and software registration

YesDVD™ allows you to transfer videotapes or other video content to a DVD+R/+RW with the professional quality features found in Hollywood movies.

- Press **SETUP** on the remote control.  
 → The setup menu appears on the TV.
- Use **▲▼** keys to highlight  { **SETUP MENU - VIDEO** } and press **▶** to confirm.



- Use **▲▼** keys to highlight { **YesDVD** } press **OK** to confirm.  
 → Instructions and explanation of the options are provided in the following pages.
- To exit, press **SETUP**.

## YesDVD™ (continued)

### YesDVD settings (underlined options are the factory default settings)

#### YesDVD

YesDVD™ automatically inserts chapter markers based on scene changes during recording to onto an empty DVD+R/+RW disc. This allows you access to specific points on the recording.

- Press **OK** to access the menu and use **▲▼** keys to select one of the options.

{ **On** }                    – Enable YesDVD™ functions.  
 { **Off** }                    – Opts-out or disables all YesDVD™ functions.

#### Switch Music Video

YesDVD™ automatically selects the best scenes and set these scenes according to three selections of music videos to create a 60-second music video. You need have at least 5 minutes of recording to use this feature. (This feature is only available after you have activated the YesDVD software.)

- Press **OK** to access the menu and use **▲▼** keys to select one of the options.

{ **On** }                    – Enable creation of YesDVD™ music video.  
 { **Off** }                    – Disables creation of YesDVD™ music video.

#### Purchase YesDVD Software

View the unique PIN code for this recorder for purchase of YesDVD™ software license.

YesDVD	
YesDVD	<u>On</u> ▼
Switch Music Video	<u>On</u> ▼
Purchase YesDVD Software	Yes
About YesDVD	Yes

- 1) Use **▲▼** keys to select { **Purchase YesDVD Software – Yes** } and press **OK**.  
 → A PIN code unique to this recorder will appear.
- 2) Write down this PIN code.

**You have three options to register and receive your YesDVD™ activation code.**

#### Option 1: Register at the YesDVD™ website

- a) On your personal computer, visit the website [www.yesdvd.com](http://www.yesdvd.com) and select activation of YesDVD™ software.
- b) Enter your PIN code and any applicable promotion code and click CONTINUE.  
 → Follow the instructions to place your order.
- c) Once complete, you will receive a unique 16-digit YesDVD™ Activation Code. Print a copy of your activation code and invoice. Proceed to Step 3.

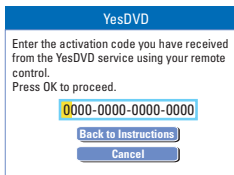
#### Option 2: Register via the phone

- a) If you do not have any internet connection, you can call 1-877-4YESDVD. Please have your PIN code and credit card information ready.  
 → Follow the instructions to place your order.
- b) Once complete, you will receive your 16-digit YesDVD™ Activation code. Proceed to Step 3

## YesDVD settings (underlined options are the factory default settings)

### Option 3: Register from existing YesDVD™ disc

- a) Remove the YesDVD™ disc from your recorder and insert into the disc drive in your personal computer.  
→ A webpage will be loaded automatically.
- b) Click { **ACTIVATE YesDVD™** }.  
→ Your PIN code will appear on www.yesdvd.com. Enter any applicable promotion code, and click CONTINUE.  
→ Enter your credit card information and click { **PLACE YOUR ORDER** }.
- c) You will receive a unique 16-digit YesDVD™ Activation Code. Print out a copy of your Activation Code and invoice. Proceed to Step3.



- 3) On your recorder, select { **Proceed to YesDVD Activation** } and press **OK**.  
→ Use the remote control to enter the YesDVD™ Activation Code, then press **OK** to proceed.

### **About YesDVD**

Select to view general information about YesDVD™.

# Timer Recording

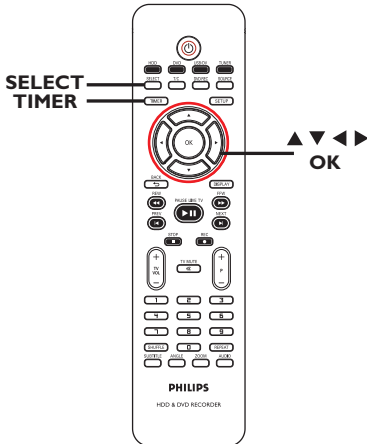
## About timer recording

Use 'Timer Recording' to automatically start and stop a recording at a later date/time. The recorder will tune to the right program channel and begin recording at the specified time.

With this recorder, you can pre-program up to **20 recordings**.

### To make a timer recording, your recorder needs to know:

- The date you want to make the recording.
- The recording input source.
- The start and stop time of the recording.
- The mode of record quality, see "Before Recording – Default Recording Settings."



## Timer recording (VCR Plus+® System)

This is a simple programming system for recorders. To use it, enter the PlusCode programming number associated with your television program. You can find this number in your TV listings magazine.

All the information needed by the recorder for programming is contained in the programming number.

- 1 Turn on the TV power. Select the correct Video In channel at the TV.
  - **If you are recording directly to a DVD disc**, insert the DVD recordable disc before proceeding to step 2.
- 2 Press **TIMER** on the remote control.
  - The timer schedule list appears.

Timer Schedule						
	Source	Rec.Mode	Date	Start	End	Rec.To
1						
2						
3						
4						
5						
6						

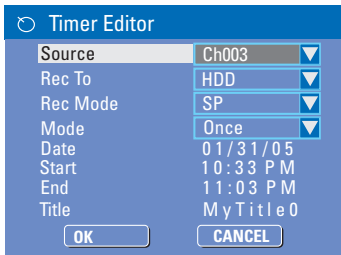
- 3 Use **▲▼** keys to highlight the next available empty slot and press **OK**.
  - The VCR Plus+® System setup menu appears.

VCR Plus+ System	
Enter the PlusCode programming number for the show you wish to record or select MANUAL for manual timer recording. To go back to timer schedule press [RETURN].	
<input style="width: 100%;" type="text"/>	
<input type="button" value="CONFIRM"/>	<input type="button" value="MANUAL"/>

**TIPS:** Set the appropriate mode of record quality for HDD recording, the same record quality will be transferred from HDD to a recordable DVD.

## Timer Recording (continued)

- 4 Use the **numeric keypad 0-9** to enter the PlusCode programming number for the show you wish to record and press **OK**. (e.g. : 5-312-4 or 5,312 4, key in '53124'.)
- To cancel the VCR Plus+® programming, press **RETURN** on the remote control.
- 5 To confirm your entry, select **CONFIRM** in the menu and press **OK**.  
→ The timer editor menu appears.



- 5 Use **▲▼** keys to select an entry in the menu and press **▶** to enter its options.

### { Source }

- Use **▲▼** keys to select the recording input source.

### { Rec To }

- Use **▲▼** keys to select { **HDD** } or { **DVD** } to enter the recording destination.

### { Rec Mode }

- Use **▲▼** keys to select your option.

### { Mode }

- Use **▲▼** keys to select { **Once** }, { **Daily** } or { **Weekly** } recordings.

### { Date }

- Use **▲▼** keys or the **numeric keypad 0-9** to enter the date for recording.

### { Start }

- Use **▲▼** keys or the **numeric keypad 0-9** to enter the start time of recording.

### { End }

- Use **▲▼** keys or the **numeric keypad 0-9** to enter the end time of recording.

### { Title }

- Use **▲▼◀▶** keys to select the alphanumeric options to enter the title of your recording.

- 6 Select **OK** in the menu and press **OK**.  
→ The system will store the timer entry and return to the timer schedule list.
- 7 Press **TIMER** to exit the menu.
- 8 Press **STANDBY-ON** to turn off the recorder.  
→ If the recorder is not in standby mode, a warning message will appear three minutes before the recording starts.  
→ The 'TIMER' icon will light up on the display panel if a timer recording is set.

**TIPS:** Set the appropriate mode of record quality for HDD recording, the same record quality will be transferred from HDD to a recordable DVD.

## Timer Recording (continued)

### Timer recording (manually)

- Turn on the TV power. Select the correct Video In channel at the TV.
  - If you are recording directly to a DVD disc, insert the recordable DVD disc before proceeding to step 2.
- Press **TIMER** on the remote control.
  - The timer schedule list appears.

	Source	Rec Mode	Date	Start	End	Rec To
1						
2						
3						
4						
5						
6						

- Use **▲▼** keys to highlight the next available empty slot and press **OK**.
  - The VCR Plus+® System setup menu appears.

VCR Plus+ System

Enter the PlusCode programming number for the show you wish to record or select MANUAL for manual timer recording. To go back to timer schedule press [RETURN].

CONFIRM MANUAL

- Select **MANUAL** in the menu and press **OK**.
  - The timer editor menu appears.

Timer Editor

Source Ch003 ▼

Rec To HDD ▼

Rec Mode SP ▼

Mode Once ▼

Date 01/31/05

Start 10:33 P M

End 11:03 P M

Title My Title 0

OK CANCEL

- Use **▲▼** keys to select an entry in the menu and press **▶** to enter its options.

#### { Source }

- Use **▲▼** keys to select the recording input source.

#### { Rec To }

- Use **▲▼** keys to select { HDD } or { DVD } to enter the recording destination.

#### { Rec Mode }

- Use **▲▼** keys to select your option.

#### { Mode }

- Use **▲▼** keys to select { Once }, { Daily } or { Weekly } recordings.

#### { Date }

- Use **▲▼** keys or the numeric keypad **0-9** to enter the date for recording.

#### { Start }

- Use **▲▼** keys or the numeric keypad **0-9** to enter the start time of recording.

#### { End }

- Use **▲▼** keys or the numeric keypad **0-9** to enter the end time of recording.


#### { Title }

- Use **▲▼◀▶** keys to select the alphanumeric options to enter the title of your recording.

- Select **OK** in the menu and press **OK**.
  - The system will store the timer entry and return to the timer schedule list.
- To cancel the above timer setting, press **SELECT** on the remote control.

**TIPS:** Set the appropriate mode of record quality for HDD recording, the same record quality will be transferred from HDD to a recordable DVD.

## Timer Recording (continued)


- 7 Press **TIMER** to exit the menu.
- 8 Press **STANDBY-ON**  to turn off the recorder.
  - If the recorder is not in standby mode, a warning message will appear three minutes before the recording starts.
  - The '**TIMER**' icon will light up on the display panel if a timer recording is set.

### Helpful Hint:

– Set the timer recording one minute ahead of the program's start time. This helps ensure the entire program is recorded as the disc requires about 30 seconds to prepare for recording.

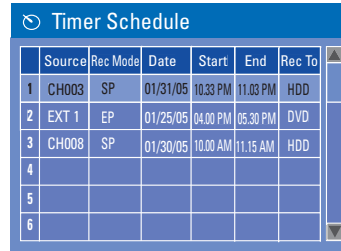
### Setting a timer recording from an external Cable Box/Satellite Receiver

If you have a Satellite Receiver/Cable Box connected to this recorder via the VIDEO (CVBS) (see the chapter "Step 2: Optional Connections") follow the steps described below to program the recordings.

- 1 Select the channel you want to record at the Satellite Receiver/Cable Box.
- 2 Program the recording with the required information. Follow the steps 1~4 of "Timer Recording (manually)" on the previous page.
  - When selecting options for { **Source** } choose { **EXT 1** } as the input channel and press **OK** to confirm.
- 3 Keep the Satellite Receiver/Cable Box turned on for the recording.
- 4 Press **STANDBY-ON**  to turn off the recorder.

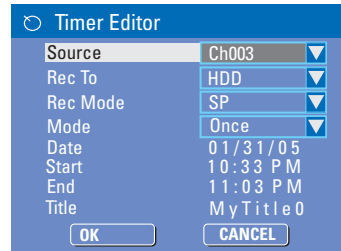
### Changing/ Deleting a timer recording

- 1 Turn on the TV power. Select the correct Video In channel at the TV.
- 2 Press **TIMER** on the remote control.
  - The timer schedule list appears.



	Source	Rec Mode	Date	Start	End	Rec To
1	CH003	SP	01/31/05	10:33 PM	11:03 PM	HDD
2	EXT 1	EP	01/25/05	04:00 PM	05:30 PM	DVD
3	CH008	SP	01/30/05	10:00 AM	11:15 AM	HDD
4						
5						
6						

- 3 Use **▲▼** keys to select a timer program which you want to change/ delete.
- 4 **To delete the timer entry**, press **SELECT** on the remote control.
- **To change the timer schedule**, press **OK** to enter the timer editor menu of the selected timer program.



Timer Editor	
Source	Ch003
Rec To	HDD
Rec Mode	SP
Mode	Once
Date	01/31/05
Start	10:33 PM
End	11:03 PM
Title	My Title 0
<input type="button" value="OK"/> <input type="button" value="CANCEL"/>	

- 5 Select the entry field and make the necessary changes.
- 6 Once complete, select  in the menu and press **OK** to save the changes.
- 7 Press **TIMER** to exit the menu.

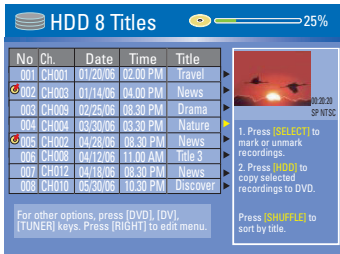
**TIPS:** Set the appropriate mode of record quality for HDD recording, the same record quality will be transferred from HDD to a recordable DVD.

# Playback from Hard Disk

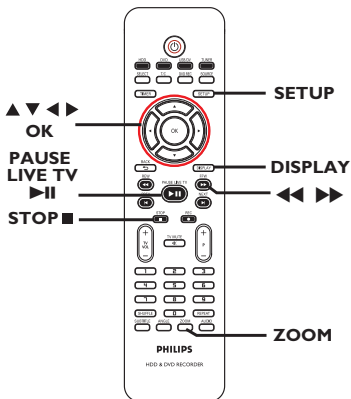
## Playback your HDD recordings

Each recording stored on the HDD is displayed in the HDD content menu with an index picture.

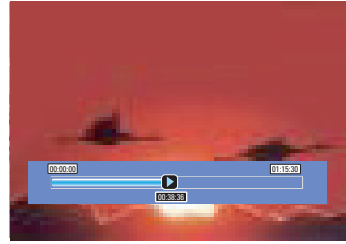
- 1 Press **HDD** on the remote control.  
→ The HDD content menu appears.
- 2 Use **▲▼** keys to highlight a title and press **OK** on the remote control to start playback.
- If you have many HDD title recordings, use **◀ (PREV)** or **▶ (NEXT)** to view the previous/ next page of HDD titles for selection.



- 3 During playback, you can use the following keys on the remote control to access additional playback features.



**TIPS:** Press **HDD** to exit the menu.



### ◀ (PREV) / ▶ (NEXT)

– moves to the beginning or previous/ next chapter.

### ◀◀ ▶▶

– press this key to start fast backward/ forward search, press the key again to increase the search speed.

### PAUSE LIVE TV ▶▶

– starts playback.  
– view a still picture.

### DISPLAY

– displays the time shift video bar. Press this key repeatedly to remove the video bar display.

– displays the help text for the selected function.

### STOP ■

– stops playback.

### ZOOM

– zooms in and out of a still/paused picture.



# Playback from Disc

## Playable discs

Using this recorder, you can play and record on the following discs:

### Recording and Playback

#### DVD±RW

(DVD ReWritable); can be recorded on and overwritten repeatedly.



#### DVD±R

(DVD Recordable); can be recorded on only once.



### Playback only:

#### DVD Video

(Digital Versatile Disc)



#### CD-RW (CD-ReWritable)

Audio/ MP3/ JPEG contents



#### CD-R (CD-Recordable)

Audio/ MP3/ JPEG contents



#### Audio CD (Compact Disc Digital Audio)



#### MP3-Disc



#### Video CD

(Formats 1.0, 1.1, 2.0)



#### Super Video CD




#### DivX Disc



(DivX 3.11, 4.x, 5.x, 6.x)



### IMPORTANT!

- If the inhibit icon (  Error ) appears on the TV screen when a key is pressed, it means the function is not available on the current disc or at the current time.
- DVD discs and players are designed with regional restrictions. Before playing a disc, make sure the disc is for the same region as your player.
- Do not push on the disc tray or put any objects other than discs on the disc tray. It may cause the disc player to malfunction.

### Inserting a disc

- 1 Press **STANDBY-ON** to turn on the recorder.
- 2 Press **OPEN/CLOSE**  on the front of the recorder.  
→ The disc tray opens.
- 3 Carefully place the disc onto the tray with the label facing up, then press **OPEN/CLOSE** .  
→ Make sure the disc label is facing up. For double-sided discs, load the disc as indicated on the label.
- 4 Turn on the TV power. Select the correct Video In channel at the TV (see "Finding the correct viewing channel.")
- 5 Playback will start automatically or a dialog will appear on the TV.

**TIPS:** Some discs cannot be played on this recorder due to the configuration and characteristics of the disc, or due to the condition of recording and authoring software.

## Playback from Disc (continued)

### Starting disc playback

- Playback will begin automatically. If the disc has its own menu this will be loaded, otherwise the recorder will launch an index screen.
- If the pin code entry dialog appears on the TV, this means that the parental control was activated for the inserted disc (see the section "Setup Menu Options – Preferences Settings – Parental Level.")  
→ Use the **numeric keypad 0-9** on the remote control to enter your pin code (password.)
- For more playback features, see "Additional Playback Features".

### Playing a DVD video disc

The DVD disc is usually formatted with a disc menu. You may have to make your selection (e.g., subtitle or audio language) within the disc menu.

- 1 Insert a DVD disc.  
**If the disc menu appears on the TV,**
  - Use the **numeric keypad 0-9** to input your selection or use ◀▶▲▼ keys to select a play option and press **OK** to start playback.

**To select a specific chapter/title marker,**

  - During playback, press **T/C** on the remote control repeatedly to toggle between { **Title** }, { **Chapter** } or { **Time** }. Use the **numeric keypad 0-9** to input your selection of title/chapter number or specific time during playback.
- 2 To stop playback, press **STOP ■**.

### Playing a (Super) Video CD

(Super) Video CDs may feature 'PBC' (Play Back Control.) This allows you to play the video CDs interactively, following the menu on the display.

- 1 Insert a (Super) Video CD.  
**If the 'PBC' is on, the disc index menu will appear on the TV**
- 2 Use **numeric keypad 0-9** to input your selection or to select a play option.
  - Press **RETURN** on the remote control to return to the previous menu.
  - To turn on/off the Playback Control mode, press **DISPLAY** key on the remote control twice during playback to access the playback menu options.  
→ Use ▲▼ keys to select { **PBC** } and press ▶ to select either { **PBC On** } or { **PBC Off** }.
- 3 To stop playback, press **STOP ■**.

### Playing an audio CD

- 1 Insert an audio CD.  
→ Playback starts automatically.
- 2 To stop playback, press **STOP ■**.

### Playing a DVD±R disc

- 1 Insert a recorded DVD±R disc.  
→ The Index Picture screen appears.
- 2 Use ▲▼ keys to select a title and press ▶|| to start playback.
- 3 To stop playback, press **STOP ■**.

#### Helpful Hint:

– If the message 'BLANK' appears on the display panel, this means that there are no recordings on this disc.

**TIPS:** Some discs cannot be played on this Recorder due to the configuration and characteristics of the disc, or due to the condition of recording and authoring software.

## Playback from Disc (continued)

### Playing a DivX® disc

This recorder supports the playback of DivX® movies which you can copy from your computer onto a CD-R/RW or DVD±R disc.

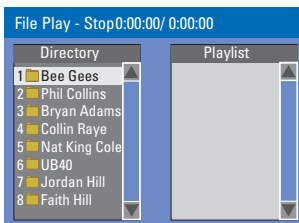
- 1 Insert a DivX® disc.  
→ The disc content menu appears.
- If the DivX® movie contains external subtitles, you have to first select the subtitle file from the file list. Use ▲▼ keys to select the files for playback and press **SELECT** to confirm your selection.
- 2 Press ►|| to start playback.
- During playback, you can press **DISPLAY** on the remote control to display the disc content menu.

#### Helpful Hints:

- Subtitle files with the following filename extensions (.srt, .smi, .sub, .sami) are supported.
- It is normal to experience an occasional pixelation during MPEG-4/DivX® playback due to poor encoding of the content.

### Playing a MP3 disc

- 1 Insert a MP3 CD.  
→ The disc content menu appears.



**Note:** It may require a longer time for the recorder to display the disc content menu on the TV due to the large number of songs/pictures compiled into one disc.

- 2 Use ▲▼ keys to navigate within the menu and press **OK** to access the folder/album.
- 3 Use ▲▼ keys to select the track/file to play.
- To go to the previous menu, press **RETURN**.
- 4 To create a playlist, highlight the track/file and press **SELECT**.  
→ The selected tracks/files will appear on the right screen.  
→ Use ◀▶ keys to toggle between the left and right screens.
- 5 Press ►|| to start playback.
- 6 During playback, you can press ◀ (PREV) / ▶ (NEXT) to select the previous/next track.
- 7 To stop playback, press **STOP** ■.

#### Helpful Hints:

- Only the first session of a multi-session CD will play back.
- It is normal to experience an occasional "skip" while listening to your MP3 disc.

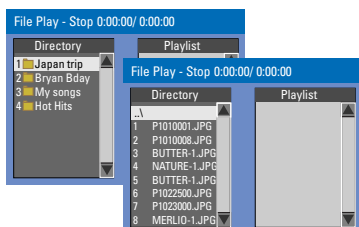
**TIPS:** The operating features described here might not be possible for certain discs. Always refer to the instructions supplied with the discs.

## Playback from Disc (continued)

### Playing a picture disc (or musical slide show)

You can display JPEG pictures in the selected roll automatically one after the other.

- 1 Insert a JPEG picture disc (CD, CD-R/RW, DVD).  
→ The disc content menu appears.
- 2 Use ▲▼ keys to navigate within the menu and press **OK** to access the folder/album.
- 3 To create a playlist, highlight the track/file and press **SELECT**.  
→ The selected tracks/files will appear on the right screen.  
→ To remove the track/file from the playlist, press **SELECT** once.
- 4 You can select to playback from the original disc content or from the playlist, just use ◀▶ keys to move to the correct screen before selecting the track/file for playback.



If the disc contains **MP3** music and **JPEG** picture files, you can start a **musical slide show** playback,

- Select an MP3 file and press **OK** to start playback, then select a picture file in the menu and press **OK** to start the musical slide show playback.
- 5 During playback, you can press **DISPLAY** on the remote control to access various settings for the slide show playback.

File Play	
Type	PIC
Mode	Normal
Trick	Play
Wipe	Top to bottom <
Zoom	Fitscreen
Rotate	Clockwise 0

Top to bottom
Down to top
Left to right
Right to left
Extend center V

- Press **ZOOM** on the remote control to enlarge the picture.
- 6 To stop playback, press **STOP** ■.

### Playable JPEG picture disc

This recorder can read JPEG pictures stored on a CD-ROM, Picture CD, or DVD.

#### File format:

- The file extension has to be '.JPG', '.JPE' or '.JPEG'.
- It can only display DCF-standard still pictures or JPEG pictures e.g. TIFF. It cannot play back moving pictures, Motion JPEG, progressive JPEG and other formats, or pictures in formats other than JPEG, or pictures associated with sound.
- It may require a longer time for the recorder to display the disc content on the TV due to the large number of songs/pictures compiled onto one disc.

**TIPS:** The operating features described here might not be possible for certain discs. Always refer to the instructions supplied with the discs.

## Playback from Disc (continued)

### Playing from a USB flash drive /USB memory card reader

This USB port only supports the playback of JPEG/MP3 files. It is not possible to record the data from the USB port to this DVD recorder.

- 1 Insert a USB flash drive or USB memory card reader into the USB port.
- 2 Press **USB/DV** twice on the remote control to access the data in the USB drive.  
→ The USB content menu appears.
- 3 Use **▲▼** to navigate within the menu and select the file you want to access, then press **OK**.
- 4 To create a playlist, highlight the track/file and press **SELECT**.  
→ The selected tracks/files will appear on the right screen.  
→ To remove the track/file from the playlist, press **SELECT** once.
- 5 To stop playback, press **STOP ■** and remove the USB flash drive / USB memory card reader from the USB port.

**TIPS:** The operating features described here might not be possible for certain discs. Always refer to the instructions supplied with the discs.

## Additional Playback Features

### Changing to another title/ chapter/track

When a disc contains more than one track, title or chapter, you can change to a different track, title or chapter as follows.

During playback,

- Press **▶|** (NEXT) to go to the next title/ chapter/track.
- Press **|◀** (PREV) to return to the start of the previous title/chapter/track.  
OR
- Press **T/C** repeatedly to toggle between { **Title** }, { **Chapter** } or { **Time** }. Then use the **numeric keypad 0-9** to input the title/chapter/track number.

### Pausing playback and step play

- 1 During playback, press **▶||** to pause playback and display a still picture.
- 2 Press **▶** (RIGHT) again to move one frame forward.
- 3 To resume normal playback, press **▶||**.

### Searching forward/backward

You can fast forward or fast reverse a disc at two, four, sixteen or thirty two times the normal playback speed.

- 1 During playback, press and hold **◀◀** (fast reverse) or **▶▶** (fast forward) to switch to the search function.
- 2 During disc playback, press **▶** (RIGHT) to access the playback menu.  
→ Use **▲▼** keys to highlight { **Trick Mode - Play** } and press **▶** (RIGHT) to access the search speed options:
  - FFWD x2, FFWD x4, FFWD x16, FFWD x32, FREV x2, FREV x4, FREV x16, FREV x32, Slow FWD x1/2, Slow FWD x1/4, Slow FWD x1/8, Slow REV x1/2, Slow REV x1/4, Slow REV x1/8.
  - The sound will be muted.
- 3 To resume normal playback, press **▶||**.

### Zooming in

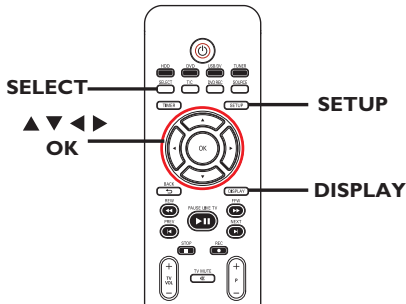
This option allows you to enlarge the picture on the screen and pan through the enlarged picture.

- 1 Press **ZOOM** on your remote control to activate zoom.
- 2 Use **◀▶▲▼** keys to pan through the zoomed picture.
- 3 To exit, press **ZOOM** repeatedly until the picture returns to the normal size.

**TIPS:** The operating features described here might not be possible for certain discs. Always refer to the instructions supplied with the discs.

## Additional Playback Features (continued)

### Using DISPLAY options



- 1 During playback, press **DISPLAY** twice on the remote control.  
→ The playback menu appears on the TV.

▷ DVD	
Mode	Normal ▶
Trick mode	Play
Title	02/05
Chapter	01/22
Audio	01/02 - OTH
Subtitle	Off
Angle	01/03
Title Time	00:22:03 - 00:27:24

- 2 Use ▲▼ keys to select the setting you want to adjust.  
→ Instructions and explanation of the options are provided in the following pages.
- 3 To exit, press **DISPLAY**.

### Selecting various repeat function

You can select various repeat play or random play mode during playback.

This function can also be accessed by pressing the **REPEAT** key on the remote control.

- 1 During disc playback, press **DISPLAY** twice on the remote control.  
→ The playback menu appears.
- 2 Use ▲▼ keys to select { **Mode** } and press **OK**.
- 3 Use ▲▼ keys to select one of the repeat options.

#### { **Normal** }

– Select this to cancel the repeat mode and return to normal playback.

#### { **Repeat A-B** }

– Select this to repeat the playback of a specific segment within a title/chapter/track. Press **OK** to mark the start and end of the segment you want to repeat.

#### { **Repeat Chapter** }

– Select this to repeat playback of the current chapter (DVD, recordable DVDs only.)

#### { **Repeat Track/Title** }

– Select this to repeat playback of the current track/title.

#### { **Repeat Directory** }

– Select this to repeat playback of the current folder/directory (MP3, JPEG, picture disc only.)

#### { **Repeat Disc** }

– Select this to repeat playback of the entire disc.

- 4 To cancel repeat playback, press **STOP** ■, then press **▶II**. Or, repeat steps select ① to ③ and select { **Normal** } and press **OK**.

**TIPS:** The operating features described here might not be possible for certain discs. Always refer to the instructions supplied with the discs.

## Additional Playback Features (continued)

### Programming disc tracks

You can play the contents of the disc in the order you want by programming the tracks to be played.

- 1 Press **DISPLAY** on the remote control.  
→ The playback menu appears.
- 2 Select { **Mode** } > { **Program** }.  
→ The program menu appears.



- 3 If the disc is recorded with Titles/Folders/ Albums, press **OK** to access the tracks/ files/chapters.
  - Pressing **OK** at the highlighted track/file/ chapter will start playback.
  - Use ◀▶ keys to toggle between the left and right screen.

### To program your favorite track/ file/chapter

- 4 Use ▲▼ keys to select the track/file/ chapter to program and press **SELECT** on the remote control.  
→ The selected track/file/title will appear at the right screen.  
→ The order on the right screen will be the order of program playback.

### To remove the programmed item from your selection

- 5 Press ▶ key to move to the right screen. Use ▲▼ keys to select the track/file/ chapter to program and press **SELECT** on the remote control.

### To start program playback

- 6 Press ▶ key to move to the right screen and press **OK**.  
→ Playback will start from the selected track/ file/ chapter according to the programmed sequence.

### To exit program playback

- 7 Press **STOP** ■ to exit program playback.

### Changing the audio soundtrack language

This operation works only on DVDs with multiple soundtrack language or VCDs with multiple audio channels.

This function can also be accessed by pressing the **AUDIO** key on the remote control.

- 1 Press **DISPLAY** on the remote control.  
→ The playback menu appears.
- 2 Use ▲▼ keys to select { **Audio** } and press ▶ to access its options.
- 3 Use ▲▼ keys to select the audio language and press **OK** to confirm.  
→ The languages may be numbered or abbreviated, such as "En" for English.  
→ If the language selected is not available on the disc, the disc's default setting for language will be used instead.

#### Helpful Hint:

– Some DVDs allow soundtrack language changes only via the DVD disc menu. To access the disc menu, press DVD on the remote control.

**TIPS:** The operating features described here might not be possible for certain discs. Always refer to the instructions supplied with the discs.



## Additional Playback Features (continued)

### Changing subtitle language

This operation works only on DVDs with multiple subtitle languages, you can change the language you want while playing the DVD.

This function can also be accessed by pressing the **SUBTITLE** key on the remote control.

- 1 Press **DISPLAY** on the remote control.  
→ The playback menu appears.
- 2 Use **▲▼** keys to select { **Subtitle** } and press **▶** to enter the menu and find the different available options.
- 3 Use **▲▼** keys to select the language and press **OK** to confirm.  
→ The languages may be numbered or abbreviated, such as “En” for English.  
→ If the language selected is not available on the disc, the disc’s default setting language will be used instead.

#### *Helpful Hint:*

– Some DVDs discs allow subtitle language changes only via the DVD disc menu. To access the disc menu, press **DVD**.

### Switching camera angles

This option is only available with DVDs that contain sequences recorded from different camera angles. This allows you to view the picture from different angles.

This function can also be accessed by pressing the **ANGLE** key on the remote control.

- 1 Press **DISPLAY** on the remote control.  
→ The playback menu appears.
- 2 Use **▲▼** keys to select { **Angle** } and press **OK** to enter its options.  
→ The camera angles available for selection appear.
- 3 Use the **numeric keypad (0-9)** to enter the camera angle you want to switch to, then press **OK** to confirm.

### Time search

This option allows you to skip to a specific point on the current disc.

- 1 Press **T/C** on the remote control repeatedly to display { **Time : -- : -- : --** } on the top left corner of the screen.  
→ Use the **numeric keypad (0-9)** to enter the time required.  
→ Playback skips to the selected time.

**TIPS:** The operating features described here might not be possible for certain discs. Always refer to the instructions supplied with the discs.

## Edit Recordings - HDD

### About HDD title edit menu

In the HDD title edit menu, you can change the title name, hide unwanted scenes, delete titles, split a title or change the title index picture.

The edit options in the HDD title edit menu are:

#### { Play Title }

- Select a title (recording) to play.

#### { Delete Title }

- ( For unprotected and unlocked titles only )
- Delete the title (recording).

#### { Divide Title }

- Divide the recording into two separate titles.

#### { Edit Title }

- Hide the unwanted scene in the recording.

#### { Rename }

- Change the name of a title (recording).

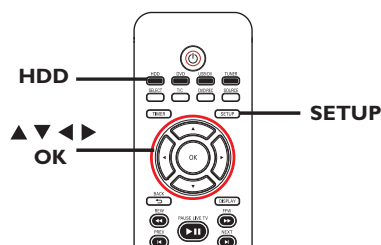
#### { Lock/ Unlock }

- Lock or unlock a title (recording) to prevent/allow playback.

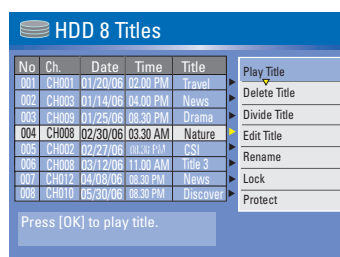
#### { Protect/ Unprotect }

- Protect or unprotect a title (recording) to prevent/allow erasure or changes being made.


### Accessing the HDD title edit menu



- 1 Press **HDD** on the remote control.  
→ The HDD content menu appears.
- 2 Use **▲▼** keys to highlight a title (recording) and press **▶**.  
→ The HDD title edit menu appears.



- If you have many HDD title recordings, use **◀** (PREV) or **▶** (NEXT) to view the previous/ next page of HDD titles for selection.
- 3 Use **▲▼** keys to access the different options and press **OK**.  
→ Instructions and explanation of the options are provided in the following pages.
- 4 To exit, press **◀** to go back to the HDD title menu screen.

**Note:** Any title/ recording which has been edited will be marked with an edited icon  next to the selected title's index picture.

**TIPS:** Press **◀** to go back to the previous menu.

## Edit Recordings - HDD (continued)

### Dividing a title

You can divide the current title into two new titles. Each of these titles is characterized by its own index picture.

**Warning!** Once a title is divided, the process cannot be reversed.

- 1 In HDD title edit mode, use ▲▼ keys to highlight { **Divide Title** } and press **OK**.  
→ The edit title playback screen appears.
- 2 During playback, use ◀▶ keys to navigate through the title. Press **OK** to divide the title at the desired playback position.  
→ A warning message will appear.
- 3 To confirm, select **OK** in the menu and press **OK**.  
→ A new title will be shown in the HDD title menu.
- 4 To abort, select **CANCEL** and press **OK**.

### Hiding unwanted scenes

You can choose to hide certain scenes from playback (e.g. skipping a commercial scene) or make it visible again.

- 1 In HDD title edit mode, use ▲▼ keys to highlight { **Edit Title** } and press **OK**.  
→ The edit title playback screen appears.
- 2 During playback, press **PAUSE II** and use ◀▶ keys to navigate through the title. Press **OK** to mark the beginning of a segment to hide.
- 3 Press **OK** again to mark the end of segment to hide.
- To hide more segments, repeat steps 2 to 3 for each segment you want to hide.

#### To unhide the scenes,

- 4 In HDD title edit mode, use ▲▼ keys to highlight { **Edit Title** } and press **OK**.  
→ The edit title playback screen appears.
- 5 During playback, use ◀▶ keys to navigate through the title. Press **OK** at the beginning of the marked segment.
- 6 Press ▶ repeatedly until you reach the end of the marked segments and press **OK**.

#### Helpful Hints:

- All hidden scenes will be played back in HDD title edit mode.
- The { **Edit Title** } option is only available if the title is unlocked or unprotected.

**TIPS:** Press ◀ to go back to the previous menu.

## Edit Recordings - HDD (continued)

### Rename a title


The original title name is automatically generated by the recorder. You can change the disc name by following the steps below.

- 1 In HDD title edit mode, use ▲▼ keys to highlight { **Rename** } and press **OK**.  
→ The keyboard screen appears.
- 2 Use ◀▶▲▼ keys to highlight a character on the keyboard and press **OK** to select.  
→ The maximum input is up to 12 characters.
- You can use the following keys on the keyboard screen to edit your input:
  - BkSp** : to remove a character to the left of the cursor.
  - Space** : to create a space between characters.
  - Caps** : to toggle between upper and lower case characters .
  - Clear** : to clear the entry field completely.
  - Exit** : to exit the keyboard screen.
- 3 To confirm your entry, select **OK** on the keyboard and press **OK**.  
→ The info panel is now updated.
- To exit, select **Exit** on the keyboard and press **OK**.

### Lock/Unlock a title


You can choose to lock a title to prevent any unauthorized playback of the recording.

If a title has been locked, the user will be prompted to enter a 4-digit password preset in the system setup menu. For details, see “Parental Rating Level.”

- In HDD title edit mode, use ▲▼ keys to highlight { **Lock** } and press **OK**.  
→ The locked title will have a Lock icon  next to its index picture.  
→ When the title is locked, the option in the HDD title edit menu will change to { **Unlock** }.

### Protect/ Unprotect a title

You can choose to protect the title in order to prevent accidental loss of recordings.

- In HDD title edit mode, use ▲▼ keys to highlight { **Protect** } and press **OK**.  
→ The protected title will have a Safe Box icon  next to its index picture.  
→ When the title is protected, the option in the HDD title edit menu will change to { **Unprotect** }.

**TIPS:** Press ◀ to go back to the previous menu.

# Edit Recordings - Recordable DVD

## About disc edit menu

This recorder offers various disc edit options for various disc types. You can change the disc content and settings of a DVD recordable disc from the disc editing menu. The edited contents may not be available if you play the disc on another DVD player.

The displayed options in the disc editing menu may differ depending on the type of disc.

### { Play }

– Start playing from the beginning of the disc.

### { Rename Disc }

– Change the name of the disc.

### { Erase Disc } - DVD±RWs only

– Erase all the recordings in the disc.

### { Record New Title }

– Start recording from the last empty title in the disc.

### { Overwrite Disc } - DVD±RWs only

– Start a new recording from the beginning of the disc, all the recorded content will be overwritten.

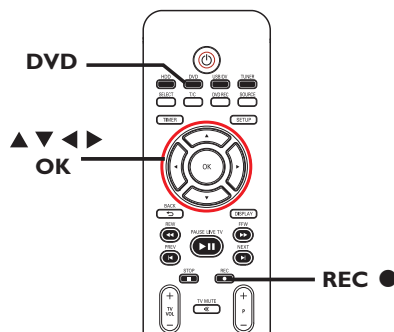
### { Finalize Disc } - DVD±Rs only

– Finalize the disc to enable playback on other DVD players. Further recording and editing to the disc are not allowed. It is not possible to unfinalize the disc.

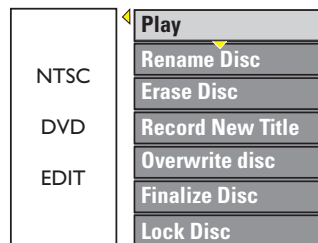
### { Lock/Unlock Disc } - DVD±RWs only

– Lock or unlock a disc to prevent accidental erasure or changes being made.

## Accessing disc editing menu



- 1 Insert a recorded DVD±R/±RW disc into the recorder.  
→ The Index Picture screen appears on the TV.
- 2 Select the first title on the disc, press and hold ▲ on the remote control.  
→ The disc editing menu appears. Press ► to access the options. The available editing options may vary for DVD±R and DVD±RW discs.



- 3 Use ▲▼ keys to access different options and **OK** to select.  
→ Instructions and explanation of the options are provided in the following pages.
- 4 To exit, press **DVD** to go back to the disc Index Picture screen.

**TIPS:** No further recording and editing can be carried out on a finalized recordable DVD. Press **DVD** to return to the index picture screen.

## Edit Recordings - Recordable DVD (continued)

### Rename disc

The original disc name is generated automatically by the recorder. You can change the disc name by following the steps below.

- In disc editing menu, use ▲▼ keys to select { **Rename Disc** } and press **OK**.  
→ The keyboard screen appears.
- Use ◀▶▲▼ keys to highlight a character on the keyboard and press **OK** to select.  
→ The maximum input is up to 9 characters.
- You can use the following keys on the keyboard screen to edit your input:
  - BkSp** : to remove a character to the left of the cursor.
  - Space** : to create a space between characters.
  - Caps** : to toggle between upper and lower case characters .
  - Clear** : to clear the entry field completely.
  - Exit** : to exit the keyboard screen.
- To confirm your entry, select **OK** on the keyboard and press **OK**.  
→ The info panel is now updated.
- To exit, select **Exit** on the keyboard and press **OK**.

### Erase disc (DVD±RWs only)

This erases the content of the DVD±RW disc including those that was not recorded on this recorder. Once the existing content is erased, it can be used for recording.

- In disc editing menu, use ▲▼ keys to select { **Erase Disc** } and press **OK**.  
→ A warning message will appear.
- Select **YES** in the menu to proceed or **NO**, to abort, then press **OK** to confirm.

#### Helpful Hint:

– To erase content that cannot be played back on this recorder, please use the option {Delete Optical Disc.} under the setup menu.

### Record a new title

This function allows you to start a new recording at the remaining empty space in the DVD recordable disc.

- In disc editing menu, use ▲▼ keys to select { **Record New Title** } and press **OK**.
- Select the source you want to record from and press **REC ●** to start recording.

### Overwrite disc (DVD±RWs only)

This function allows you to start a new recording from the beginning of a DVD±RW regardless of the contents of the disc.

- In disc editing menu, use ▲▼ keys to select { **Overwrite disc** } and press **OK**.
- Select the source you want to record from and press **REC ●** to start recording.

**TIPS:** No further recording and editing can be carried out on a finalized recordable DVD. Press **DVD** to return to the index picture screen.

## Edit Recordings - Recordable DVD (continued)

### Lock/Unlock disc (DVD±RWs only)

You can choose to protect the recordings on the DVD±RW disc in order to prevent accidental loss of recordings.

- 1 In disc editing menu, use ▲▼ keys to select { **Lock Disc** } and press **OK**.  
→ The disc is locked for this recorder only.  
→ When the disc is locked, the option in the disc editing menu will change to { **Unlock Disc** }.
- 2 If you want to overwrite or edit on the protected disc, select { **Unlock Disc** }.

### Playing your recordings (DVD±R) on other DVD players

It is necessary to finalize a DVD±R disc before you can play it on any other DVD player. Otherwise, the disc will only playback on this recorder.

**After a DVD±R disc has been finalized, no further recordings or editing can be made to it. Make sure you have completed all the recordings and editing before finalizing the disc.**

- 1 In disc editing menu, use ▲▼ keys to select { **Finalize Disc** } and press **OK**.  
→ A warning message will appear.
- 2 Select **YES** in the menu and press **OK** to start the process.  
→ Finalization will take a few minutes.  
Do not try to open the disc tray or turn the power off as this may render the disc unusable.
- 3 Select **NO** to abort.

**TIPS:** No further recording and editing can be carried out on a finalized DVD±R. Press **DVD** to return to the index picture screen.

## Edit Recordings - Recordable DVD (continued)

### About DVD title editing

You can change the individual title information or delete a title (recording) in a recorded DVD disc. If the recordable DVD disc has been finalized, it cannot be edited.

The displayed options in the title editing menu may differ depending on the type of disc.

#### { Play Title }

– Start playing a recording.

#### { Edit Title }

– Access video editing menu.

#### { Rename Title }

– Change the name of the recording.

#### { Erase Title } - DVD±RWs only

– Delete the title (recording.)

#### { Overwrite Title } - DVD±RWs only

– Start a new recording and the existing title (recording) will be overwritten.

#### { Overwrite Disc } - DVD±RWs only

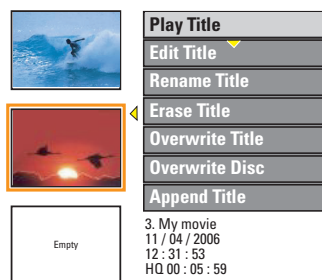
– Overwrite from existing selected title onwards to the end of the disc.

#### { Append Title }

– Insert a new recording to the last existing recording.

### Accessing DVD title edit menu

- 1 Insert a recorded DVD±R/±RW disc into the recorder.  
→ The Index Picture screen appears on the TV.
- 2 During playback, press **DVD** to access the Index Picture screen.
- 2 Use ▲▼ keys to highlight a title (recording), and press ►.  
→ The title editing menu appears.



- 3 Use ▲▼ keys to access different options and **OK** to select.  
→ Instructions and explanation of the options are provided in the following pages.
- 4 To exit, press ◀.

### Editing video

This feature allows access to the video editing menu. See “Edit Recordings – Recordable DVD” for more information.

- In title editing menu, use ▲▼ keys to select { **Edit Title** } and press **OK**.  
→ The video editing menu appears.  
→ The recorder will play the selected title.

**TIPS:** No further recording and editing can be carried out on a finalized DVD±R. Press ◀ to go back to the previous menu.



## Edit Recordings - Recordable DVD (continued)

### Rename title

The original title name is generated automatically by the recorder. You can give a new name to the title by following the steps below.

- In title editing menu, use ▲▼ keys to select { **Rename Title** } and press **OK**.  
→ The keyboard screen appears.
- Use ◀▶ ▲▼ keys to highlight a character and press **OK** to select.  
→ The maximum input is up to 9 characters.
- You can use the following keys on the keyboard screen to edit your input:
  - BkSp** : to remove a character to the left of the cursor.
  - Space** : to create a space between characters.
  - Caps** : to toggle between upper and lower case characters .
  - Clear** : to clear the entry field completely.
  - Exit** : to exit the keyboard screen.
- To confirm your entry, select **OK** on the keyboard and press **OK**.  
→ The info panel is now updated.
- To exit, select **Exit** on the keyboard and press **OK**.

### Erase title

You can delete a specific title (recording) from the disc. However, for the DVD±R disc, the deleted space cannot be used for further recording.

- In title editing menu, use ▲▼ keys to select { **Erase Title** } and press **OK**.  
→ A warning message will appear.
- Select **YES** in the menu to proceed or **NO** to abort, then press **OK** to confirm.

**TIPS:** No further recording and editing can be carried out on a finalized DVD±R. Press ◀ to go back to the previous menu.

### Overwrite title (DVD±RW only)

This function allows you to record a new title from the beginning of the current title in the DVD±RW disc.

- In title editing menu, use ▲▼ keys to select { **Overwrite Title** } and press **OK**.
- Select the source you want to record from and press **REC ●** to start recording.

### Overwrite from the selected title

You can select to overwrite only the recordings from the selected title to the end of the disc.

- In title editing menu, use ▲▼ keys to select { **Overwrite Disc** } and press **OK** to confirm.

### Append recording

This function allows you to append recording to the last existing title.

**Note:** Under the { **Append Title** } option, it is not possible to select the mode of record quality when a recording is appended to an existing title on a DVD. The record quality will always be determined by the quality mode of the existing title.

- In title editing menu, use ▲▼ keys to select { **Append Title** } and press **OK**.
- Press **SOURCE** to select the input channel to append.
- Press **REC ●** to start append recording.
- To stop append recording, press **STOP ■**.

## Edit Recordings - Recordable DVD (continued)

### About video editing

After a recording has been made, this recorder allows you to edit the video content. You can add/delete chapter marker, hide unwanted scenes, change the picture in the index picture screen and split a title (recording) into two.

When you playback a recording in video edit mode, the entire recording will be played back including hidden scenes.

The edit functions available in the disc editing menu are:

#### { Title }

- Select a specific title (recording) to play.

#### { Chapter }

- Select a chapter within the selected title.

#### { Chapter Marker }

- Insert a chapter marker in the recording or erase a chapter marker to combine two chapters.

#### { Hide Chapter }

- Hide the unwanted scene in the recording.

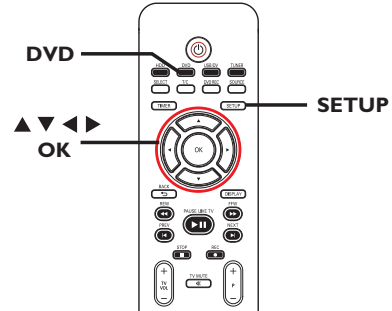
#### { Index Picture }

- Select a scene in the recording as the index picture screen.

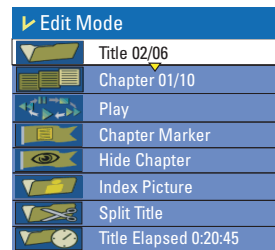
#### { Split Title }

- Divide the recording into two under separate titles.

### Accessing video editing menu



- 1 Insert a recorded DVD±R/±RW disc into the recorder. Press **DVD** on the remote control.  
→ The Index Picture screen appears on the TV.
- 2 Use **▲▼** keys to highlight a title (recording), and press **▶** to access the menu.  
→ The title editing menu appears.
- 3 Use **▲▼** keys to select { **Edit Title** } and press **OK**.  
→ The edit mode menu appears.




- 4 Use **▲▼** keys to access different options and press **OK** to select.  
→ Instructions and explanation of the options are provided in the following pages.
- 5 To exit, press **DVD**.

**TIPS:** No further recording and editing can be carried out on a finalized DVD±R. Press **◀** to go back to the previous menu.

## Edit Recordings - Recordable DVD (continued)


### Selecting a title

It shows the current title and the total number of titles in the disc. It also allows you to select another title.

- 1 In edit mode, use **▲▼** keys to select  { **Title** } and press **OK**.
- 2 Use the **numeric keypad 0-9** to key in a title and press **OK**.  
→ The recorder will play the selected title.

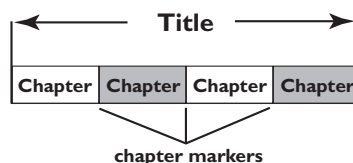
### Selecting a chapter


It shows the current chapter and the total number of chapters in the title. It also allows you to select another chapter within the title.

- 1 In edit mode, use **▲▼** keys to select  { **Chapter** } and press **OK**.
- 2 Use the **numeric keypad 0-9** to key in the chapter and press **OK**.  
→ The recorder will play the selected chapter.

### Creating chapter markers

You can create a chapter by inserting a chapter marker at any point within a title during playback. This will allow you to access a specific point in the recording easily or set a chapter you wish to hide.




- 1 In edit mode, use **▲▼** keys to select  { **Chapter Marker** } and press **OK**.
- 2 Use **▲▼** keys to select one of the options and press **OK** to confirm.
  - { **Insert Marker** }
    - Select this to insert a new chapter marker at the current point of playback.
  - { **Delete Marker** }
    - Select this to delete the current chapter marker (it refers to the closest marker before the current point of playback.)  
The current chapter will then combine with the chapter before it.
  - { **Delete All Markers** }
    - Select this to delete all the chapter markers in the current title.

**TIPS:** No further recording and editing can be carried out on a finalized DVD±R.  
Press **◀** to go back to the previous menu.


## Edit Recordings - Recordable DVD (continued)

### Hiding an unwanted chapter

You can choose to hide certain scenes from playback (e.g. skipping a commercial scene) or make it visible again.

- 1 Create a chapter marker at the scene you are going to hide. ( See previous page on “Creating chapter markers”.)
- 2 Select the chapter you want to hide and start playback. ( See previous page on “Selecting a chapter”.)
- 3 In edit mode, use ▲▼ keys to select  { **Hide Chapter** } and press **OK**.  
→ The current chapter will be hidden.

### To unhide a chapter


- 1 In edit mode, use ▲▼ keys to select  { **Unhide Chapter** } and press **OK**.  
→ The video editing menu appears.  
→ While in editing mode, the hidden chapter/chapters will play.
- 2 Wait for the chapter you want to unhide to occur or use ◀▶ keys on the remote control to make a fast search.  
→ The current chapter will be visible during playback.

#### Helpful Hint:

– All the hidden chapters will be played back while in video editing mode.

### Changing Index Picture


The index picture is the picture of the title you will see when the recorder loads up the Index menu. Normally, the first frame of a recording is shown as the title's index picture.

- 1 In edit mode, use ▲▼ keys to select  { **Index Picture** } and press **OK**.  
→ The display will be in playback mode.
- 2 Use ◀▶ keys on the remote control to search for the scene to use, then press **OK** to confirm the current scene as the index picture for the title.  
→ The new index picture will be shown in the title menu.

### Splitting a title (DVD±RWs only)

You can divide the current title into two new titles. Each of these titles will be characterized by its own index picture.

**Warning!** Once a title is divided, the process cannot be reversed.

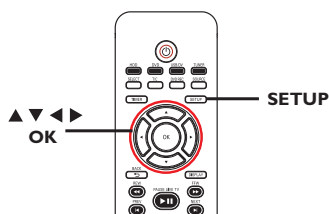
- In edit mode, use ▲▼ keys to select  { **Split Title** } and press **OK** to divide the title at the current playback position.  
→ A new title will be shown at the Index Picture screen.

**TIPS:** No further recording and editing can be carried out on a finalized DVD±R.  
Press ◀ to go back to the previous menu.

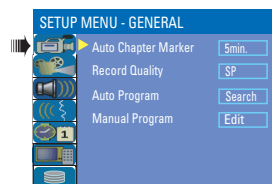
# Setup Menu Options

## Accessing the Setup Menu

The setup menu provides various options for you to adjust the recorder to suit your preferences.



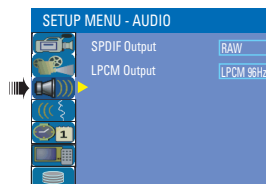
- 1 Press **SETUP** on the remote control.  
→ The setup menu appears on TV.
- 2 Use **▲▼** keys to highlight a setup option and press **▶** to access.
- 3 Use **▲▼** keys to highlight the setting you wish to change and press **OK** to confirm and go back to the previous menu item.  
→ Instructions and explanation of the options are provided in the following pages.
- 4 To exit, press **SETUP**.



See chapters “Before Recording” and “Setup Menu Options – GENERAL settings”



See this chapter “Setup Menu Options – VIDEO settings”



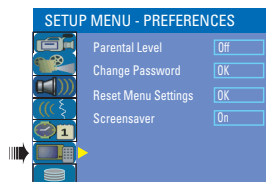
See this chapter “Setup Menu Options – AUDIO settings”



See the chapter “Step 3: Installation and Setup – LANGUAGE settings”



See the chapter “Step 3: Installation and Setup – DATE/TIME settings”



See this chapter “Setup Menu Options – PREFERENCES settings”



See the chapter “Before Recording – HDD settings”

## Setup Menu Options (continued)

### VIDEO settings (underlined options are the factory default settings)

#### TV System

The color system of the DVD system, DVD and TV should match. Only then will it be possible to play a DVD on this system. Before changing the TV system, determine the color system of your TV.




- Press **▶** to access this menu and use **▲▼** keys to select one of the options.

- { NTSC } – Select this if the connected TV has the NTSC color system. It will change the video signal of a PAL disc and output it to NTSC format.
- { PAL } – Select this if the connected TV has the PAL color system. It will change the video signal of an NTSC disc and output it to PAL format.

#### TV Shape

The picture shape can be adjusted to fit your TV.

- Press **▶** to access this menu and use **▲▼** keys to select one of the options.

- { 4:3 LB } – For a 'wide screen' display with black bars on the top and bottom of the screen. 
- { 4:3 PS } – For a full-height picture with sides trimmed. 
- { 16:9 WS } – For wide screen TV (frame ratio 16:9.) 

#### Progressive Scan

Progressive scan delivers a higher picture quality than the standard interlaced TV channel scan. It only works when you have connected the recorder's Y Pb Pr jacks to your TV that supports the progressive video input. Otherwise, the image may not appear or will be distorted. Please check your TV user manual for more information.

- Press **▶** to access this menu and use **▲▼** keys to select one of the options.

- { Off } – Select this to disable progressive scan feature.
- { On } – Select this to enable progressive scan feature.

*Helpful Hint;*

*If a blank/distorted TV screen appears, wait for 10 seconds for the auto recovery.*

## Setup Menu Options (continued)

### **VIDEO settings** (underlined options are the factory default settings)

#### **DivX® Video on Demand**

Philips provides you with the DivX® VOD (Video On Demand) registration code that allows you to rent and purchase videos using the DivX® VOD service. For more information, visit us at [www.divx.com/vod](http://www.divx.com/vod).

- 1) Press **▶** to display the registration code.
- 2) Use the registration code to purchase or rent videos from DivX® VOD service at [www.divx.com/vod](http://www.divx.com/vod). Follow the instructions and copy the video from your computer onto a CD-R/RW for playback on this recorder.

#### **YesDVD**

YesDVD™ is offered on your recorder as a limited trial, enabling you to create three (3) free YesDVD™ discs from this recorder. When all the three YesDVD™ trials are used, there will be no further dialog asking to create a YesDVD™ after direct recording to DVD. To create more YesDVD™ discs, you have to purchase the full version of YesDVD™. See the chapter “YesDVD™ – YesDVD™ settings” for details

### **PREFERENCES settings** (underlined options are the factory default settings)

#### **Parental Level**

Some DVDs may have a parental level assigned to the complete disc or to certain scenes on the disc. This feature lets you set a playback limitation level. The rating levels range from 1 to 8 and are country dependent. You can prohibit the playing of certain discs that are not suitable for your children, or have certain discs played with alternative scenes.

- Press **▶** to access this menu and use **▲▼** keys to select one of the options.

#### Rating explanations

- { **1. Kid Safe** } ~ { **2. G** } – Childsafe; acceptable for viewers of all ages.
- { **3. PG** } – Parental Guidance suggested.
- { **4. PG13** } – Unsuitable for children under age 13.
- { **5. PG R** } ~ { **6. R** } – Restricted; recommended that parents restrict children under 17 from viewing or allow to view only when supervised by a parent or adult guardian.
- { **7. NC 17** } – No children under age 17; not recommended viewing for children under age 17.
- { **8. Adult** } – Mature material; should be viewed only by adults due to graphic sexual material, violence or language.
- { **Off** } – Parental Control is not active.

## Setup Menu Options (continued)

### PREFERENCES settings (underlined options are the factory default settings)

DVDs that are rated higher than the level you have selected will not play unless you enter your four-digit pin code.

#### Helpful Hints:

– This feature will not limit viewing if the disc manufacture did not code the disc.

– Parental control will not have any effect on VCDs, SVCDs or CDs as such disc do not have any level indication.

#### Change Password

This option allows you to change your password setting for parental control.

- 1) Use **▲▼** keys to highlight { **Change Password** } and press **OK**.  
→ You will be prompted to enter your four-digit pin code.
- 2) Use the numeric keypad 0-9 to enter your four-digit pin code.  
→ When doing this for the first time, enter the default password '3308'.  
→ If you forget your four-digit pin code, the default password is 3308.
- 3) Enter your new password and press **▼**.
- 4) Re-enter your new password and select **OK**, then press **OK** on the remote control to confirm.

#### Reset Menu settings

- Press **▶** to reset the menu settings of this recorder.  
→ A warning message will appear. Select **OK** in the menu to proceed or **CANCEL** to abort, then press **OK** to confirm.

#### Screensaver

The screen saver prevents damage to the TV screen by avoiding exposure to a static image for too long.

- Press **▶** to access this menu and use **▲▼** keys to select one of the options.

{ **On** } – Select this if you wish to turn off the TV screen, after playback had been stopped or paused for more than 15 minutes.

{ **Off** } – Select this to disable the screen saver.



## Setup Menu Options (continued)

### **AUDIO settings** (underlined options are the factory default settings)

#### **SPDIF Output**

- Press ► to access this menu and use ▲▼ keys to select one of the options.
  - { RAW } – Select this if you have used the recorder's COAXIAL (DIGITAL AUDIO) jack to connect to a multichannel receiver.
  - { LPCM } – Select this if you have used the recorder's COAXIAL (DIGITAL AUDIO) jack to connect to a stereo or audio/video system.

#### **LPCM Output**

This setting allows you to select between two levels:

- { LPCM 48 kHz } – Select this if the connected audio device is capable of processing digital signal input with sampling rates of 48 kHz. In addition, the disc you are playing back must be recorded in 48kHz LPCM format.
- { LPCM 96 kHz } – Select this if the connected audio device is capable of processing digital signal input with sampling rates of 96 kHz. In addition, the disc you are playing back must be recorded in 96kHz LPCM format.

# Firmware Upgrade

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## Installing the latest firmware

Periodically, Philips will issue upgrades for the firmware that was initially installed in your recorder as the firmware is continuously refined for greater stability and compatibility of the recorder.

**Caution!** Power supply must not be interrupted during upgrade!

- Visit Philips' website at '[www.philips.com/usasupport](http://www.philips.com/usasupport)' to check for the availability of the latest firmware upgrade.

**Note:** When checking for the latest firmware upgrade, please also check for any accompanying instructions on installing the firmware.

# Frequently Asked Questions

## What kind of disc should I use for recording?

You can only record on both DVD±R and DVD±RW discs. DVD+R/+RW is the most compatible recordable DVD format on the market today. They are fully compatible to most of the existing DVD-Video players and DVD-ROM drives in computers.

## What is the capacity of a DVD recordable disc?

4.7GB, or equivalent to 6 CDs. You can store only one hour of recordings on a single disc at the highest quality (DVD standard) and about 6 hours recordings at the lowest quality (VHS standard.)

The mode of record quality indicates the number of hours that will fit on a single disc.

## What is the difference between DVD±R and DVD±RW?

DVD±Rs are “recordable” discs and DVD±RWs are “rewritable” discs. With a DVD±R disc, you can record multiple sessions on the same disc, but when the disc is full, you cannot record any more content on the disc. The DVD±RW disc allows you to record over the same disc repeatedly.

## What is DV?

Using DV, also known as i.LINK, you can connect a DV-equipped camcorder to this recorder using a single DV cable for input and output of audio, video, data and control signals.

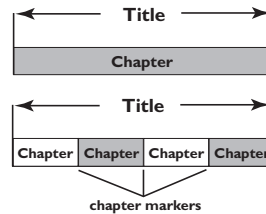
- This recorder is only compatible with DV-format (DVC-SD) camcorders. Digital satellite tuners and Digital VHS video recorders are not compatible.
- You cannot connect more than one DV camcorder at a time to this recorder.
- You cannot control this recorder from external equipment connected via the DV IN jack.

## Can I copy a VHS tape or DVD from an external player?

Yes, but only if the VHS tape or DVD is not copy-protected.

## What are Titles and Chapters?

A DVD disc contains Titles and Chapters, which are similar to the Titles and Chapters of a book. A Title is often a complete movie and is broken down into Chapters, or individual scenes from the movies.



A program is recorded as a single title, it may consist of one chapter or a few chapters within a title, depending on the recording settings.

## How do I set up Titles and Chapters?

The recorder will automatically create a new Title each time you start a new recording.

- For DVD recordings, you can add chapters manually.
- For HDD recordings, you can preset chapters to be automatically inserted at 5-minutes intervals.

## What does “finalizing” a disc do?

Finalizing a disc locks the disc so it can no longer be recorded, only required for recordable DVDs. It will then be compatible with virtually any DVD player. To close a disc without finalizing it, simply stop recording and eject the disc. you will still be able to record on the disc if there is room for more recordings.

## How good is the quality of the recording?

There are six modes of record quality levels to choose from, ranging from “HQ” (1 hour recording at high quality) to “SEP” (8 hours recording at VHS quality) on a recordable DVD. Choose the quality level that best suits your purpose and the length of materia

Record Quality	Hours of Recording that can be stored	
	HDD 160GB	DVD±R/±RW 4.7GB recordable disc
<b>HQ</b> High Quality	34	1
<b>SP</b> Standard Play	68	2
<b>SPP</b> Standard Play Plus	85	2.5
<b>LP</b> Long Play	102	3
<b>EP</b> Extended Play	136	4
<b>SLP</b> Super Long Play	200	6
<b>SEP</b> Super Extended Play	270	8

Values are estimates only. Parts of the HDD storage capacity will be reserved for the operations of this recorder and time shifting.

## Troubleshooting

### WARNING

Under no circumstances should you try to repair the system yourself, as this will invalidate the warranty. Do not open the system as there is a risk of electric shock.

If a fault occurs, first check the points listed below before taking the system for repair. If you are unable to remedy a problem by following these hints, consult your dealer or Philips for help.

Problem (General)	Solution
<b>No power.</b>	<ul style="list-style-type: none"> <li>– Press STANDBY-ON key on the front of the recorder to turn on the system.</li> <li>– Make sure the AC outlet has power.</li> </ul>
<b>The recorder does not respond.</b>	<ul style="list-style-type: none"> <li>– There is a technical problem. Disconnect the recorder from the power outlet for 30 seconds, then reconnect and switch on the recorder again..</li> </ul>
<b>Remote control does not work.</b>	<ul style="list-style-type: none"> <li>– Aim the remote control directly at the iR sensor on the front of the recorder (not towards TV).</li> <li>– Remove any obstacles between the recorder and remote control.</li> <li>– Batteries are weak, replace the batteries.</li> </ul>
<b>No picture.</b>	<ul style="list-style-type: none"> <li>– Turn on your TV and set to the correct Video In channel for the recorder. You may go to Channel I on your TV, then press the channel down key on your TV's remote control until you see the TV program.</li> <li>– Check the video connection between the recorder and the TV.</li> </ul>
<b>No sound.</b>	<ul style="list-style-type: none"> <li>– Check the recorder audio connections. Read chapter "Basic Recorder Connections - Connecting the audio cables" for details.</li> <li>– Set the option for digital audio output correctly, based on the device you have connected to the recorder. Read chapter "Setup Menu Options - AUDIO settings" for details.</li> </ul>
<b>No TV signal received from the recorder.</b>	<ul style="list-style-type: none"> <li>– Have your antenna or cable TV signal checked.</li> <li>– Install the TV channel. Read chapter "Installation and Setup - Setting your TV channel programs" for details.</li> </ul>

## Troubleshooting (continued)

Problem (Playback)	Solution
<b>Disc does not play.</b>	<ul style="list-style-type: none"><li>– Insert the disc with the label facing up.</li><li>– Wrong region code. The DVD must be coded for ALL regions or Region 1 in order to play on this recorder.</li><li>– There is no recording on the disc or it is not a supported type of disc. Read chapter "Playback from Disc - Playable discs" for details.</li><li>– Make sure the disc is not scratched or warped. Clean the disc or replace a new one.</li><li>– Check if the disc is defective by trying another disc.</li></ul>
<b>The picture is distorted or black and white during playback.</b>	<ul style="list-style-type: none"><li>– The disc does not match with the TV color system standard (PAL/NTSC).</li><li>– The disc is dirty, clean the disc.</li><li>– Sometimes a small amount of picture distortion may appear. This is not a malfunction.</li></ul>
<b>There is picture or sound interference with the TV reception.</b>	<ul style="list-style-type: none"><li>– Have your antenna or cable TV signal checked.</li><li>– Fine-tune your TV channel. Read chapter "Step 3: Installation and Setup - Setting your TV channel programs" for details.</li></ul>
<b>Distorted sound coming from a connected hi-fi system or amplifier.</b>	<ul style="list-style-type: none"><li>– Do not connect any cables from the recorder to the 'Phono' input of your amplifier.</li><li>– If you are playing a DTS CD, you have to connect the COAXIAL jack of this recorder to a Hi-Fi system or amplifier.</li></ul>
<b>The message 'UNKNOWN DISC' appears.</b>	<ul style="list-style-type: none"><li>– This message may appear if you insert a disc that may have encountered one of the following:<ul style="list-style-type: none"><li>– Error during recording: The title may be missing.</li><li>– Error while changing the title/index picture: The original title/index picture may be visible.</li><li>– Error while finalizing or the disc has not been finalized.</li></ul></li></ul>
<b>The recorded DVD cannot be played back on another DVD player.</b>	<ul style="list-style-type: none"><li>– If a recording is too short, it is possible that a DVD player/recorder cannot detect it. Please observe the following 'minimum recording times'. Mode of record quality: {High Quality - HQ} – 5 minutes, {Standard Play - SP} – 10 minutes, {Standard Play Plus - SPP} – 13 minutes, {Long Play - LP} – 15 minutes, {Extended Play - EP} – 20 minutes, {Super Long Play - SLP} – 30 minutes, {Super Extended Play - SEP} – 30 minutes.</li></ul>

## Troubleshooting (continued)

Problem (Recording)	Solution
<p><b>Recordings are not occurring as scheduled. New recordings cannot be made.</b></p>	<ul style="list-style-type: none"> <li>- The TV channel you want to record is not stored or you selected the wrong program number. Check the TV channels stored.</li> <li>- You have to reset the timer recording after adjusting the clock setting.</li> <li>- You cannot use the recorder to duplicate copy-protected materials (DVDs or videotapes) onto a DVD recordable disc.</li> <li>- The hard disk could be full. Delete some titles to create space for new recordings.</li> </ul>
<p><b>The wrong TV channel was decoded (recorded) after you programmed a recording using the VCR Plus+® system.</b></p>	<ol style="list-style-type: none"> <li>1) Enter the VCR Plus+® programming number of the desired TV channel.</li> <li>2) Press OK to confirm.</li> <li>3) Check the channel number in the {Program #} input field. If this does not correspond to the desired TV channel, select this entry field and change the channel number.</li> <li>4) Press OK to confirm.</li> </ol>
<p><b>Picture is fuzzy and brightness varies when copying DVD Video discs or prerecorded video cassettes.</b></p>	<ul style="list-style-type: none"> <li>- This happens if you try to copy DVDs or video cassettes that have been copy-protected. Even though the picture on the TV is fine, but the recording on the DVD recordable disc is faulty. This interference is unavoidable with copy-protected DVDs or video cassettes.</li> <li>- The DVD recordable disc has a limited recording lifetime, please change a new disc for recording.</li> </ul>
<p><b>The message 'This will clear the time shift buffer' appears.</b></p>	<ul style="list-style-type: none"> <li>- The requested action requires that the time shift buffer (temporary HDD storage) to be cleared. All contents that were not marked for recording will be deleted.</li> </ul>
<p><b>There is a power failure during the deleting of the recorder's HDD contents.</b></p>	<ul style="list-style-type: none"> <li>- You have to reselect the { Delete HDD } option and delete the HDD contents again.</li> </ul>
<p><b>There is a power failure during the copying of files to a DVD±R disc.</b></p>	<ul style="list-style-type: none"> <li>- The titles that were previously recorded will be deleted and the space used for recording cannot be re-used. The disc can be used as a normal blank disc. You have to re-copy the files to the disc again.</li> </ul>
<p><b>During recording from the time shift buffer, it is not possible to start or stop a recording.</b></p>	<ul style="list-style-type: none"> <li>- Parts of the signal may be copy-protected by the broadcaster. This portion of the time shift video bar will be shown in a different color. You can only start or stop a recording if the selected portion does not contain any copyright content.</li> <li>- Use ◀▶ keys or ◀◀▶▶ keys to navigate to a non-protected portion and press REC to start a recording. To end a recording, press STOP.</li> <li>- Press SELECT to clear a recording at any time.</li> </ul>

# Specifications

## Video Recording

- Recording System: NTSC/ PAL
- Compression formats: MPEG2
- Modes of Record Quality:
  - High Quality : HQ
  - Standard Play : SP
  - Standard Play Plus : SPP
  - Long Play : LP
  - Extended Play : EP
  - Super Long Play : SLP
  - Super Extended Play : SEP
- Recording enhancements:  
Auto Chapter Marker Insertion, Divide Title,  
Erase, Manual Chapter Marking, One Touch  
Record
- Audio compression: Dolby Digital

## Video Playback

- Disc Playback Media: CD, CD-R/CD-RW, DVD,  
DVD-Video, DVD+R, DVD+RW, DVD-R,  
DVD-RW, MP3-CD, Video CD, SVCD
- Compression formats: MPEG2, MPEG1, DivX
- Video disc playback system: NTSC, PAL

## Audio Playback

- Disc Playback Media: MP3-CD, CD, CD-R/  
CD-RW
- Compression formats: Dolby Digital, DTS, MP3,  
PCM,
- MP3 bit rates: 32 - 256 kbps

## Still Picture Playback

- Disc Playback Media: Picture CD
- Picture compression format: JPEG
- Picture enhancement: Rotate, Zoom, Slideshow

## TV systems

- Playback: NTSC/PAL
- Recording: NTSC/PAL
- Internal tuner: NTSC

## Video Performance

- D/A Converter 10 bit, 54 MHz
- A/D Converter 10 bit, 27 MHz
- Picture Enhancement: Progressive Scan

## Audio Performance

- DA Converter 24 bit, 192 kHz
- AD Converter 24 bit, 96 kHz
- Signal / Noise (1kHz) 100 dB
- Dynamic range (1kHz) 95 dB
- Crosstalk (1kHz) 105 dB

## Tuner/Reception/ Transmission

- TV System: NTSC
- Aerial input: 75 Ohm coaxial (IEC75)

## Storage Media

- Recording :
  - DVD+R, DVD+RW, DVD-R, DVD-RW,
- Hard Disk Capacity: 160GB
- HDD recording enhancements:
  - Instant Replay, Time Shift Buffer
- Extra Hard Disk Technology:
  - Pause Live TV, Simultaneous Record and  
Playback, Direct Record to DVD
- HDD to DVD archiving: high speed (direct copy)

## Connectivity

- Rear Connections
  - S-video out
  - Component Video out
  - Video (CVBS) out
  - Analog audio left/right out
  - Antenna in
  - TV out
  - Digital audio out (coaxial)
- Front Connections
  - i.LINK DV in (IEEE 1394 4-pin)
  - S-Video in
  - Video (CVBS) in
  - USB
  - Analog audio left/right in

## Timer Recording

- Programmable events: 20
- Repeat modes: Once, Daily, Weekly
- Enhancement: Manual Timer, VCR Plus+®  
programming

## Convenience

- Direct Record to optical disc
- Child Protection: Parental Control
- Clock: Automatic Date-Time Setting
- YesDVD™

## Power

- Power Supply: 110V~240V, 50~60 Hz
- Power Consumption: 28 W
- Standby power consumption: < 3.0 W

## Dimensions

- Set dimension (W x H x D) : 435 x 43 x 322 mm
- Set Weight : 4.3 kg

## Glossary

**Analog:** Sound that has not been turned into numbers. Analog sound varies, while digital sound has specific numerical values. These jacks send audio through two channels, the left and right.

**Aspect ratio:** The ratio of vertical and horizontal sizes of a displayed image. The horizontal vs. vertical ratio of conventional TVs is 4:3, and that of wide-screens is 16:9.

**AUDIO OUT Jacks:** Red and white jacks on the back of the system that send audio to another system (TV, stereo, etc.)

**Chapter:** Sections of a picture or a music piece on a DVD that are smaller than titles. A title is composed of several chapters. Each chapter is assigned a chapter number enabling you to locate the chapter you want.

**Component Video Out Jacks:** Jacks on the back of the DVD System that send high-quality video to a TV that has Component Video In jacks (R/G/B, Y/Pb/Pr, etc.)

**Digital:** Sound that has been converted into numerical values. Digital sound is available when you use the DIGITAL AUDIO OUT COAXIAL. These jacks send audio through multiple channels, instead of just two channels as analog does.

**Disc menu:** A screen display prepared for allowing selection of images, sounds, subtitles, multi-angles, etc recorded on a DVD.

**DivX 3.11/4.x/5.x/6.x:** The DivX code is a patentpending, MPEG-4 based video compression technology, developed by DivXNetworks Inc., that can shrink digital video to sizes small enough to be transported over the internet, while maintaining high visual quality.

**Dolby Digital:** A surround sound system developed by Dolby Laboratories containing up to six channels of digital audio (front left and right, surround left and right, center and subwoofer.)

**DTS:** Digital Theatre Systems. This is a surround sound system, but it is different from Dolby Digital. The formats were developed by different companies.

**Index Picture Screen:** A screen that gives an overview of a DVD±RW or DVD±R. An Index Picture represents each recording.

**JPEG:** A very common digital still picture format. A still-picture data compression system proposed by the Joint Photographic Expert Group, which features small decrease in image quality in spite of its high compression ratio.

**MP3:** A file format with a sound data compression system. "MP3" is the abbreviation of Motion Picture Experts Group 1 (or MPEG-1) Audio Layer 3. By using the MP3 format, one CD-R or CD-RW can contain about 10 times more data than a regular CD.

**MPEG:** Motion Picture Experts Group. A collection of compression systems for digital audio and video.

**Multichannel:** DVDs are formatted to have each sound track constitute one sound field. Multichannel refers to a structure of sound tracks having three or more channels.

**PBC:** Playback Control. Refers to the signal recorded on video CDs or SVCDs for controlling playback. By using menu screens recorded on a Video CD or SVCD that supports PBC, you can enjoy interactive playback and searching.

**PCM:** Pulse Code Modulation. A digital audio encoding system.

**Parental control:** Limits disc play according to the age of the users or the limitation level in each country. The limitation varies from disc to disc; when it is activated, playback will be prohibited if the software's level is higher than the user-set level.

**Region code:** A system allowing discs to be played only in the region designated. This unit will only play discs that have compatible region codes. You can find the region code of your unit by looking on the product label. Some discs are compatible with more than one region (or ALL regions.)

**S-Video:** Produces a clear picture by sending separate signals for the luminance and the color. You can use S-Video only if your TV has an S-Video In jack.

**Surround:** A system for creating realistic three dimensional sound fields full of realism by arranging multiple speakers around the listener.


**Title:** The longest section of a movie or music feature on DVD. Each title is assigned a title number, enabling you to locate the title you want.

**VIDEO OUT jack:** Yellow jack on the back of the DVD system that sends the DVD picture video to a TV.



## Display panel symbols/ messages

The following symbols/messages may appear on your recorder display:

- 00:00  
Multifunction display/ text line
  - Title/track number
  - Total/elapsed/remaining title/track time
  - Disc/title name
  - Additional information regarding the disc
  - TV channel number or source of video
  - Clock (This is displayed in Standby mode).
  - TV program title
-  TIMER  
A timer recording has been programmed or is active.
- BLANK  
No recordings on the disc.
- BLOCKED  
The disc tray cannot be opened or closed due to some mechanical obstruction.
- CLOSING  
Disc tray is closing.
- DISC  
The disc edit menu is on.
- EMPTY  
No recordings in the hard disk drive.
- UPDATE  
Please wait until the blinking message disappears. The disc is being formatted or data is being written to it.
- MENU  
The system setup menu, disc menu, title menu or timer menu display is on.
- HDDMENU  
The hard disk menu display is on.
- NO DISC  
No disc has been inserted. If a disc has been inserted, then it is possible that the disc cannot be read.
- NOSIGNAL  
No signal or poor signal strength.
- OPEN  
Disc tray is opened or opening.
- PRO SCAN  
Lights up when progressive scan is activated.
- READING  
Disc is being recognized by the recorder.
- PHILIPS  
The recorder has been turned on.
- UNKNOWNM  
The disc cannot be read.
- SCANXXX  
Please wait until this message disappears. The recorder is busy processing an operation. XXX indicates the number of found channels, and is constantly updated
- Y\_CHXXX  
In time shift mode, where XXX indicates the input video source or channel number of tuner input.

## PHILIPS LIMITED WARRANTY ONE (1) YEAR

### WARRANTY COVERAGE:

PHILIPS warranty obligation is limited to the terms set forth below.

### WHO IS COVERED:

Philips warrants the product to the original purchaser or the person receiving the product as a gift against defects in materials and workmanship as based on the date of original purchase ("Warranty Period") from an Authorized Dealer. The original sales receipt showing the product name and the purchase date from an authorized retailer is considered such proof.

### WHAT IS COVERED:

The Philips warranty covers new products if a defect arises and a valid claim is received by Philips within the Warranty Period. At its option, Philips will either (1) repair the product at no charge, using new or refurbished replacement parts, or (2) exchange the product with a product that is new or which has been manufactured from new, or serviceable used parts and is at least functionally equivalent or most comparable to the original product in Philips current inventory, or (3) refund the original purchase price of the product.

Philips warrants replacement products or parts provided under this warranty against defects in materials and workmanship from the date of the replacement or repair for ninety (90) days or for the remaining portion of the original product's warranty, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes Philips' property. When a refund is given, your product becomes Philips' property.

**Note: Any product sold and identified as refurbished or renewed carries a ninety (90) day limited warranty.**

**Replacement product can only be sent if all warranty requirements are met. Failure to follow all requirements can result in delay.**

### WHAT IS NOT COVERED - EXCLUSIONS AND LIMITATIONS:

This Limited Warranty applies only to the new products manufactured by or for Philips that can be identified by the trademark, trade name, or logo affixed to it. This Limited Warranty does not apply to any non-Philips hardware product or any software, even if packaged or sold with the product. Non-Philips manufacturers, suppliers, or publishers may provide a separate warranty for their own products packaged with the bundled product.

Philips is not liable for any damage to or loss of any programs, data, or other information stored on any media contained within the product, or any non-Philips product or part not covered by this warranty. Recovery or reinstallation of programs, data or other information is not covered under this Limited Warranty.

This warranty does not apply (a) to damage caused by accident, abuse, misuse, misapplication, or non-Philips product, (b) to damage caused by service performed by anyone other than Philips or Philips Authorized Service Location, (c) to a product or a part that has been modified without the written permission of Philips, or (d) if any Philips serial number has been removed or defaced, or (e) product, accessories or consumables sold "AS IS" without warranty of any kind by including refurbished Philips product sold "AS IS" by some retailers.

### This Limited Warranty does not cover:

- Shipping charges to return defective product to Philips.
- Labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna systems outside of the product.
- Product repair and/or part replacement because of improper installation, connections to improper voltage supply, abuse, neglect, misuse, accident, unauthorized repair or other cause not within the control of Philips.
- Damage or claims for products not being available for use, or for lost data or lost software.
- Damage occurring to product during shipping.
- A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- A product used for commercial or institutional purposes (including but not limited to rental purposes).
- Product lost in shipment and no signature verification receipt can be provided.
- Failure to operate per Owner's Manual.

### TO OBTAIN ASSISTANCE IN THE U.S.A., PUERTO RICO, OR U.S. VIRGIN ISLANDS...

Contact Philips Customer Care Center at:  
1-888-PHILIPS (1-888-744-5477)

### TO OBTAIN ASSISTANCE IN CANADA...

1-800-661-6162 (French Speaking)  
1-888-PHILIPS (1-888-744-5477) - (English or Spanish Speaking)

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*This warranty gives you specific legal rights. You may have other rights which vary from state/province to state/province.*

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